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AND AMERICAN GARDENER'S MAGAZINE.

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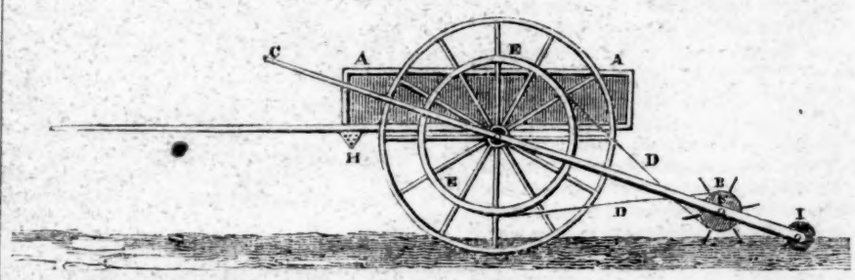
D. K. MINOR, Proprietor.] FOR JUNE, 1835. [SAMUEL FLEET, Editor.

ORIGINAL COMMUNICATIONS.

Agriculture of Scotland and England. By H. [For the New-York Farmer and American Gardener's Magazine.]

Mr. Editor,—In your number for March, p. 70, is a letter on Scotch husbandry, containing some statements as to which readers may think differently. After reading it, any one might believe that good farming was universal in Scotland, when, in fact, it extends over a few of the southern districts only. It would be about as reasonable to call improved short-horns or Herefords, as is often done here, the English breed, when, in fact, there are many varieties in England, and some very inferior. Senex speaks of the husbandry of Scotland as superior to that of all other countries, except Holland and the Netherlands. This tale of Flemish husbandry has been so often told by amateurs, that men believe it without inquiry, but is sufficiently answered by Mr. Boswell, in the Edinburgh Quarterly Journal of Agriculture, Vol. 1, p. 189. Their implements and live stock are very inferior. Mr. B. says the best farming he saw out of Britain on the large scale was in Flanders, near Waterloo, but it is clumsy and performed with very defective instruments. What good work is seen is spade work, mere gardening. The same may be collected from Radcliffe's work on Flanders. Any one who goes to Scotland may see bad husbandry in various quarters. Between Berwick and Edinburgh the road lies through the Lothians, where is much good husbandry, but also many crops full of weeds. Mr. Coke, of Holkham, many years since, praised their turnip husbandry as *equal* to any he ever saw, but said that he found their grain crops foul with weeds. From Edinburgh to Glasgow is much wretched country; where it is farmed, you see bad fences, immense thistles, and ragwort on grass lands, with charlock or wild mustard, and other weeds, among grain crops. From Glasgow to Hamilton and Lanark is much bad farming. The same towards Paisley; in fact, a stranger who has heard those boasts of good farming, looks for it in vain in many parts of Scotland. As he turns south and crosses the border, he cannot help being struck with the change in the aspect of the country. Much good stock is reared in Scotland for sale, and immense droves of Galloway and Highland cattle are continually sent southward. These, with some from Fife and Argyleshire, are peculiar to the country; but if a man, after hearing or reading of Ayrshire cows, and Clydesdale horses, goes to the fairs of Glasgow or Rutherglen, he will see that Ayrshire cattle are the short-horns of the north-east of England, bred down to the climate and soil of Scotland: and an excellent variety they are. He will see that all their best horses are of English origin, and that the Clydesdale cart-horses have evidently and recently been formed by the introduction of English cart-stallions. The same is true as to their husbandry where it is good. In a London paper, called the Country Times, is a letter from Mr. Blaikie, dated Holkham, April 16, 1830, setting this matter in its true light. No doubt Mr. Blaikie has national feelings, but he is also a lover of truth, which is more to the purpose than the oft told tale of the Lothians and Dumfriesshire. Mr. Blaikie's words are: "The Lancashire farmer is in error in terming the ditch and bank fences the Scotch method of growing quicksets. It is purely Norfolk, and was practised here long before it was introduced into the north. Scotland is indebted to Norfolk for many of its best husbandry practices—for instance, pair of horse ploughing, the culture of turnips as a field crop, the alternate course husbandry of white and green crops, the drilling of corn, raising quickset hedges, and many other improvements of a similar nature. This is accounted for by the intercourse, consequent upon the great corn and cattle dealings, which has for ages subsisted between the two countries. It is remarkable, that improved practices, originating in Norfolk, seldom diverge from thence towards the south and west. They are generally adopted in the north, in the first instance, as before mentioned, and are then introduced to the southern districts, where the Scotch system of husbandry is frequently talked of as something superlative. That is literally the Norfolk system, modified and adapted to the soil and climate of the north. This remark is, I admit, not courteous, but it is just, and will not give offence to liberal-minded men." Mr. B. was for some years steward to that excellent farmer and man, T. W. Coke, of Holkham, Norfolk, England. He is a native of Scotland, a superior and thoroughly practical man, who has published very little, but all good. This is more than can be said of many agricultural works, such as those compiled by Dickson, Sinclair, and Loudon, which, to a practical man, are literally useless. Loudon's Encyclopædia of plants is a capital work; thanks to such men as Lindley and Sowerby. H.

Remarks.—We can hardly perceive how H. can justly call Loudon's Encyclopædia of Agriculture and Horticulture useless, when they are principally composed of opinions and practices of the most enlightened and practical operators. His late editions, too, have undergone all those improvements which the most diligent inquiries and researches could make.—[Ed.]



Machine for Harrowing, Sowing, and Rolling. By James D. Woodside. To the Editor of the New-York Farmer, and American Gardener's Magazine.

Sir,—I have recently invented and tested what judges esteem a valuable improvement in the harrow. It consists of a revolving cylinder, containing 45 feet, which is revolved by a power obtained from the wheels of a cart, to which it is with ease attached and detached. In addition to the harrow, there is a convenience for sowing the grain in front of the cart, by supplying a hopper, from which it is conveyed into a sieve, so constructed as to distribute it from wheel to wheel. The cylinder harrow in the rear of the cart effectually covers the grain. Attached to this is another cylinder used as a roller. From the above it will be perceived that I can of a truth affirm, that I can sit in the front of my cart, under a canvas covering, sow the grain, harrow and roll it in, without exposure to the sun, leaving the ground without any impression of the horses' feet, my own feet, or the cart wheels.

You will perceive by the crossing of the band, that the cylinder has a counter motion to that of the cart wheels, making 12 revolutions while the wheels of the cart make one.

References.—AA, the cart; B, cylinder; C, shaft on one side, with a power to elevate or depress the cylinder; D D, chain-band; E E, the V groove-wheel; F, do. do. on the end of the cylinder; H, the end of the sieve; I, the roller. The hopper is inside the front of the cart, and not seen.

Highly competent judges have approved of the machine, and I think the advantages great. I am advised by Mr. Van Kleek, of your State, who has witnessed its operations, to exhibit it at Albany, before Mr. Van Rensselaer, and other patrons of agriculture in that vicinity. This I shall do as soon as I conveniently can.

It is my determination to dispose of only a half or fourth of a right to a state, until it shall recommend itself to the public. Although the invention has been patented by

me nearly a year, yet I have not heretofore brought it into any notice, having been determined to perfect it as far as possible before exhibiting it.

Your very obedient servant,
JAMES D. WOODSIDE.

Washington City, D. C., May 9, 1833.

REMARKS.—We think very favorably of the above, and hope farmers will show a prompt disposition to favor the inventor, who, we understand, devised the plan and superintended the work of placing the colossal statue of Washington on the summit of the Monument in Baltimore.—[ED.]

Murrain and Scab in Sheep. By CARLO. [For the New-York Farmer.]

MR. FLEET,—Take half an ounce of gum gamboge, one ounce of saltpetre, reduce to fine powder, mix with them two quarts of charcoal in powder, and three quarts of common salt; mix all intimately together. This preparation given once or twice a week to sheep, in lieu of common salt, will, I believe, be found an effectual remedy against *murrain* and *scab*; and to cattle, will obviate many disorders to which they are liable. To hogs, mix a pint to a barrel of swill once in two or three weeks; it will prevent most of the disorders to which they are subject.

CARLO.

September 12, 1832.

Suggestions relative to Farmers' Work for June. By the EDITOR.

This is the month in which the farmer should look about, and see what nature is doing for him. If indications imply that the boughs of fruit trees are soon to be bent towards the ground with the weight of the growing fruit, he will look into his cellar and see that none of his barrels and hogsheads become destroyed for the want of a little attention. If the timely showers and genial warmth of the sun have made the meadows to wave with the green grass, then he will sharpen his scythes and engage in season the sturdy, the industrious, and the *temperate* arm to swing them. If the grain is of a healthy green, even, and free from the destroying insects, he will prepare his mows, his cradles, and make other preparations. It is not sufficient to manure and prepare the ground well, to sow carefully, and to cultivate diligently, but the reaping must be done in season, and the crop well secured. Every preparation, therefore, should be made in time.

PASTURING.—Pasture grounds should be divided, not only for the superior and additional food that is afforded grazing stock, but because it enables them to obtain the requisite quantity in a much less time, thus enabling them to avoid long exposures to storms, to burning heat, and to the tortures of flies. Cattle and horses, like the human race, require time for repose and sleep.

SHADE.—Pasture will go further and stock will thrive faster when there is a good shade of easy access. They are not only refreshed, but the digestive organs would, we should suppose, perform their functions more naturally when the body was free from the pain inflicted by flies, as well as that arising from the intense rays of the sun.

HAY MAKING.—The object in curing hay is to keep it from fermenting when in the stack or mow, and to preserve as much as possible its sweetness and its juices. Some farmers disapprove of spreading the hay, but recommend it to remain to dry a little in the swarth, and then not to spread it, but simply to turn it over. Others advise to scatter it about immediately, and rake and get it into the barn before the leaves are so dry as to crumble. The latter, we think, is the correct way when the weather is very fine. Both of the above practices imply that the grass should not be left to become sun burnt, dry and hard. In case the hay is not perfectly as dry as it should be, mix with it, when mowed away, last year's hay or straw. Under all circumstances sprinkle from four to eight quarts of salt to a ton of hay. This is considered to increase its value at least one half, and even four times, say those who speak from experience. By the use of salt, hay may, as a general rule, not run half the risk of being injured.

WASHING AND SHEARING SHEEP.—If sheep can be washed immediately after a storm, it can be done better, and there will be a greater probability of having uninterrupted drying without dust until the wool is fit for shearing. The coarse soiled wool about the thighs and docks should have been cut off a few weeks previous, to have kept the wool cleaner, and the udders of the ewes from becoming sore. Care should be taken in driving, and catching, and handling them, particularly if they are full and fat. If they are fed on good pasture they should remain in the pen or yard sometime, to alleviate the suffering arising from their confined situation. Mortification often takes place from bruises in fat sheep. Instances have occurred in which valuable sheep have died in the operation of shearing, from being fleshy and full, and from suffocation. When turned out into the fields, there should be shade to protect them from the burning heat of the sun, and from storms. Many of our best breeders of sheep advise water to be accessible at all times.

CORN.—Some farmers disapprove of the use of the plough in tilling corn on the ordinary soil for this crop, because it breaks and exposes its roots to the sun. They recommend as a substitute the cultivator, or, as some farmers call it, the plough-harrow, which does not ridge the ground. Cutting out the very feeble plants, and thinning those hills that have in too many shoots, are recommended by good farmers.

CATERPILLARS.—These should be carefully watched and destroyed on their first appearance, as well as later in the season. Some shoot them, others, with a long pole, having tow or rags around the end wet with spirits of turpentine, swab them off.

Botts and Founders in Horses. By CARLO. [For the New-York Farmer, and American Gardener's Magazine.]

MR. FLEET,—I have noticed in several papers, and in your New-York Farmer for April, sundry communications on the subject of Farriery, and among others one recommending fish brine for botts in horses. This is undoubtedly good, but not better than beef brine, pork brine, or even salt and water. It is the salt that kills the botts, and this salt should be scoured out by some physic; but I notice one recommending a mysterious cure for flesh wounds, signed Stephen Palmer, to wit: 1 oz. of green copperas, 2 oz. of common salt, 8 oz. of West India molasses, 4 oz. of spirits of turpentine, 2 oz. white vitriol, 2 oz. of linseed oil, and 1 oz. of oil of vitriol.

Now, I apprehend that this mysterious cure might as well have remained a secret, and that a poultice of corn meal or bran, wet with warm water, would be found much better.

Another recommending alum for founder has drawn my notice. We all know that alum is a powerful astringent—that founder, in recent stages, is an inflammatory disorder, and alum would be more likely to increase the fever than to abate it. Alum would be likely, also, to produce costiveness. No prescription should be used without submitting it to some person who knows the virtue of medicine; and I venture nothing in saying, that the above prescriptions are absurd, and will be pronounced so by all who know the operations of copperas or alum.

Yours, &c. CARLO.

April 20, 1833.

Bugs in Peas—Destroying Canada Thistle. By A. K. B. [For the New-York Farmer, and American Gardener's Magazine.]

MR. EDITOR,—I have for some time thought of writing something for your paper. I would ask some questions for my own information, and that of others in this vicinity. First, respecting the bugs in peas—whether the egg of the insect is in the pea when it is sowed, or whether the pea is stung when in blossom, or after it is matured? Why are peas, sowed in this part of the country, always buggy, whether we sow them pure or not? If we get them 40 miles west of Albany, pure, and sow them, we are sure to have them buggy. Does the time of sowing make a difference? If so, what month is best—April, May, or June,—or is it in the season?

Second, A question most important to the agricultural community at large, respecting the subduing of Canada thistle. Many attempts to destroy them have been made without success. In a few instances they have been cut down and have disappeared. This shows that they can be subdued, if we knew the method. Is there a certain time in the year, a particular month, or day of the month? In what state should the thistle be? I have tried mowing them, at different changes of the moon in different months, and in different states of the plant, but without success; I tried pulling them out by the root after a rain—I ploughed them down—but all to no purpose, they still continue to increase. I once succeeded. I salted my sheep upon the spot: determined that they should eat them, I covered the plant completely with the salt all over the root. It is now twelve years since I did this, and I have never seen a thistle upon the spot since. As I kept no account I cannot tell why I conquered them, and have not been able to do it since. It was not the salt, because I have repeatedly tried throwing brine upon them to no purpose.

Would it not be an object for some person who has leisure to try a bed of them, if he even spent six months in the year, and cut one down every day and labelled it, and kept a memorandum of the exact time and state in which each plant was cut down? He would be conferring a great benefit upon the community by letting the result of his experience be known. I, for one, would be willing to pay liberally to obtain the information, and I presume every farmer would who is troubled with this noxious weed. A. K. B.

Schaghticoke, May, 1833.

REMARKS.—We hope some of our corres-

pondents will answer the queries of A. K. B. So many methods for destroying the Canada thistle have been given—methods that have been so variously and partially successful, that it is difficult to give any one that can be relied on. Mowing them two or three times a year, just before a rain—ploughing the ground well—sowing potatoes broad-cast, and covering the ground from twelve to fifteen inches with straw, are among the plans recommended. The straw will prevent all vegetation from growing except the potatoes. If the efforts for destroying this thistle insure a profitable crop at the same time, it is reasonable to hope there may be some general movement for this object among farmers.—[Ed.]

New-York State Agricultural School, connected with Hamilton College. By the Editor.

It has often been remarked, that one cause why we, as a nation, have not gained greater celebrity in literature and science, is the multiplicity of our collegiate institutions, dividing the patronage of the public to so great a degree that but comparatively few of them can be said to do any thing more than to exist. To sustain them in being exhausts the resources of the trustees, and is the object of thought, care, and anxiety of those who instruct and preside. There are, in this state, five chartered colleges, besides others ranked among this class of our learned institutions. All the patronage now divided on these five, if concentrated on one, would enable that one to assume a standing that would accord with the acquired and increasing greatness of the state, and to which we could direct the foreigner, and suffer no mortifying apprehensions about the comparisons he might make between it and those of his native country. It is very easy to account for the multiplicity of these institutions in our country. Divided into twenty-four locally independent states, the legislature of each is petitioned by the various religious denominations for the endowment of a college more or less under their respective influence. These, supported by the local interests of the different sections of a state, have often been successful in the erection of large commodious buildings, which appear exclusively for the accommodation of the studiously intent spider, and for the occasional sports of a wandering grimalkin among the quadruped occupants of the learned halls.

It would seem, therefore, expedient to agitate the subject of obtaining one of the colleges already in existence for the contemplated agricultural school, or having the two so connected that the present purposes of the college may not only be preserved but promoted, and important facilities given to the objects of the agricultural community. Hamilton College is in the village of Clinton, Oneida county, and eight or ten miles from Utica. If we were called upon to locate a state agricultural school, we could recommend no location more eligible than that of this institution. It is geographically central, and equally so in reference to the population. The buildings are of stone, built in the most substantial manner, and sufficiently spacious to accommodate three or four hundred students. They stand on an eminence about a mile from the village, commanding a most beautiful and extensive prospect of the rich valley of the Mohawk, and of the distant mountains that give rise to the Black river. The farms adjoining the college grounds could unquestionably be obtained, and at reasonable prices. They have every variety of soil and aspect which would be desirable.

It will be recollected by our readers that the State Agricultural Society petitioned the Legislature at its last session for the appropriation of the sum of $100,000 for the establishment of a school and an experimental farm. The preliminary expenses set forth in the petition were as follows. (See New-York Farmer, Vol. VI. p. 84.)

Farm of 400 acres at $30,	12,000
Farm buildings, - -	6,000
School buildings, - -	25,000
Library and apparatus, -	7,500
Stock of implements, -	3,150
Shops and tools, - -	1,250
Furniture for school, -	1,150
Incidental, - - -	1,500
	$57,550

Deduct the sums for school buildings and furniture, and there will be a saving in expense of $26,150. Apply the other sums for the purposes specified, and the 7,500 to increasing the present library and apparatus. Laying aside the estimated annual expenses in the petition, we should have the farm and shops conducted on the principle that their proceeds pay the salary of the manager, the gardener, machinist, and for the labor of the students; and that the additional professors and teachers obtain their salaries in the same way as others do—from the income of the college. Deducting $26,150 from $57,550, there will remain only $31,400, as requisite to form one of the most splendid literary agricultural institutions on the globe—an institution that would soon become the pride and boast of our country, and that would, in the train of events, raise the American, and especially the New-York farmer, to a pre-eminence to which none of other countries could aspire. To meet contingencies, let the above sum be increased to $40,000, which can be obtained from the Legislature much easier than $100,000, and which, expended as we suggest, will be more certain of accomplishing the ends in view, and produce a far greater amount of good.

In case the experimental farm is connected with the college, it will be requisite to substitute some studies more intimately connected with agriculture for those much less so, for the agricultural students. Many colleges and universities adopt this principle in the requisition of their studies. The society should have a vote in the government of the college, and the appointment of the superintendant of the farm and of the gardener.

The above is a hasty outline of what we deem a simple and feasible plan of a State Agricultural School. We respectfully solicit communications on the subject.

To destroy Caterpillars. By R. M. W. [For the New-York Farmer.]

Mr. Fleet,—It is said that the caterpillar is doing great mischief to our fruit trees. They are, indeed, troublesome visitors, and not easily got rid of; yet, if the following expedient be followed with perseverance, I am persuaded they may be in a great measure destroyed:

Take a quart of whiskey or other cheap proof spirits; put into it half an ounce of camphor; when dissolved it is fit for use. Take a green stick 8 or 10 feet long, split one end, take a pint mug of red or white earthen, place in the split and secure it with a string, and it is ready for operation. Take half a pint of camphorated spirits, put it in a separate vessel and set on some coals, not near a blaze. When hot it is fit for use. It may be poured into the pint mug and taken to the orchard; the hot spirits may then be set on fire and held close up to the caterpillar's nest, and moved from nest to nest, not holding it more than half a minute in any one place. This will speedily destroy all the caterpillars, both under and on two sides of the limb. This should always be done in the morning or in the evening, while the caterpillars are in their nests, and repeated once in three days for two or three times. Those on the upper side of the limb will escape the fire, of course, but may be destroyed by making a strong decoction of tobacco, strong brine, or strong soap suds, which may be applied with a squirt; and where it comes in contact with the caterpillars, either will instantly destroy them. It would be better to take them while young, than to wait until they have attained their full size and are scattered about the tree.

Yours &c. R. M. W.

Potter, May, 1833.

Retrospective Criticisms on the First Series of the New-York Farmer. By the Editor. Vol. I. No. V, 1828. [Continued from page 132.]

Culture and Manufacture of Tea.—An American gentleman, physician in this city, gives an account of the culture of tea in the Royal Botanic Garden of Brazil. Of the horticulture generally of that country, he says, "it would be as easy to furnish you with a sketch of the notions upon political economy entertained by the Patagonians, or an elaborate essay upon the state of the fine arts among the Hottentots."

The tea plant, (Thea viridis,) occupies a space in the garden of 8 or 10 acres, is planted at the distance of four feet from each other. It is a handsome shrub, about two feet high. The leaves are stripped several times in the year; and hence arise the different sorts of tea in use. No particular care is taken of the plant. It blooms in July, August, and September. The gathered leaves are exposed to the air for a few hours, until they begin to wilt, and are then thrown into circular pans in brick work, under which is a moderate fire. These pans are of iron, four feet in diameter, and about a foot deep. The leaves are stirred briskly for about ten minutes, when they are thrown out to another person, who holds before him a flat wicker or willow frame about two feet wide and four feet in length, slightly inclined towards the floor. He strews the leaves upon this frame, and lays over it another frame of the same dimensions and materials. By moving the frame rapidly to and fro for several minutes, the leaves are curled up and fall at the lower end of the frame into baskets. The curled leaves are put over a strong fire for a few minutes, to drive out the remainder of the moisture, and are then put into chests or boxes. The writer thinks each plant would produce full three pounds annually. It is propagated by slips. The writer thinks it might be cultivated in the United States with much more profit than is obtained from either sugar or cotton—that six men might cure and prepare for market the crop of one hundred acres—and that even women and children could do a great portion of the labor. From the known similarity of the climate and soil of China to those of the United States, he con-

cludes that it could be cultivated in the Southern States, and from the fact it grows well in Japan, as high as the 45th degree of latitude, he has no doubt that it will bear considerable frosts. We are inclined to agree with the writer, from the fact that so many of the flowering plants of China and Japan stand our winters perfectly well. Let the people of the south patronize the exertions of Dr. Perrine, and they will soon cease to complain of the operations of the tariff.

EARLY POTATO.—Dr. S. Reynolds, of Florida, N. Y., has a variety of the potato, which ripens in forty or fifty days after it vegetates. It is "white, smooth, with few eyes, and of a large shape, generally a little flattened." From experiments, he finds them to ripen ten days earlier than Messrs. Thorburn's earliest.

RED CEDAR HEDGES.—A writer recommends them to be transplanted from the fields, or to sow the seeds on a ridge formed with a plough, along the fence, where they are intended to stand.

MANURES.—In a long and excellent article, by G. W. Johnston, Esq., manure, allowed to decompose until the heap becomes a saponaceous substance, loses 50 per cent.

CAMILLIAS.—The Chevalier Soulange Bodin says, the most essential point in cultivating the camillia is that of not putting it into too large a pot—that this plant succeeds "far better in a good free-working mould, fine in its texture, and rather sandy," than in bog-earth. This soil is different from that recommended by Mr. Thomas Hogg, wherein he says the most suitable soil is "a free or open black bog earth, well mixed with about one third of yellow loam." The article of the Chevalier Bodin contains many details, which we should deem excellent.

ALMOND.—The soft shell almond will stand the winters of Pennsylvania as well as the peach tree, says a writer at Shippensburgh. Thousands of dollars are annually sent to the shores of the Mediterranean for this nut.

POTATOES.—The Dumfries Journal states that a gentleman took up and replanted his potatoes six times in one season, getting a larger quantity of potatoes at every succeeding time. This is almost incredible.

Visit to the Linnæan Botanic Garden of Flushing. By the EDITOR.

On the 10th ult. we took steamboat up the East river to the rural village of Flushing, where is the well known garden of Messrs. W. Prince & Sons.

The first subject to which we would invite the attention of our readers is the collection of Dahlias, comprising above six hundred varieties, three hundred of which have just been received from European collections. Among those the most novel and rare are a number of striped varieties, and one of deep crimson hue, with a white border. One bed contains nine hundred and thirty-six plants. These with an equal number along the borders, will present, when in full flower, a blaze of beauty probably never surpassed.

There were pointed out to us four varieties of the Judas Tree, Cercis, in flower—the European red and white, and the American red and deep crimson; the latter highly interesting, found wild in Maryland, and transferred to the garden by inoculation.

A Magnolia grove, containing above sixty large trees of various species, producing flowers and seeds in abundance, afforded a sight of this pride of American forests not elsewhere seen in this part of our country. It has often been remarked that this grove presents its greatest display of bloom at the period of the birth of Linnæus, the 24th of May, thus seeming to honor the day that gave birth to the father of botany. A lofty tree of the M. cordata, or yellow flowering magnolia, was resplendently in bloom. Of this last, Messrs. Prince have two distinct varieties, one of which originated with them from seed. This species produces flowers twice during the season, in May and August. Of the Magnolia conspicua we were shown a tree ten feet high. The M. obovata was in its prime, as well as the M. gracilis and pyramidata: the purple and cream-colored blossoms of the former present a striking and beautiful contrast to those of the other species. The varieties of the M. grandiflora, one of which has double flowers, were equally admirable. The white purple tinged flowers of the M. soulangiana had just disappeared. We were pleased to learn that all these varieties of the magnolia stand our winters without the least protection, as was evinced by their vigorous appearance in one of the most exposed situations in the garden.

A large number of the Wistaria consequana attracted attention by their splendid floral attire. It is a hardy climber, and supposed capable of standing the winters of Quebec.

A large plot of Azaleas, containing upwards of fifty varieties, presented blossoms of every hue. Among them were the yellow and the orange, and one of double flesh-colored blossoms. In addition to these were rare Chinese Azaleas. The scarlet Cydonia japonica was splendidly decked with flowers. Not less gay was the double variety, blush or white flowering. The fruit of the first is small, but that of the last is of considerable size, and possesses a delightful and powerful fragrance, making odorous preserves. Along the main avenue is a number of trees of the Scotch Roan, or mountain ash, and near one of them is quite a lofty weeping birch, transplanted originally from its native highlands, overshading a seat suited for the perusal of Scotland's romances and poems. A purple leaved beech attracted our attention by the feuillemort hue of its foliage, giving the casual observer an impression that it was in its last stage of existence.

The roses, amounting to seven hundred varieties, are arranged in large plots or beds, and numbered according to the catalogue. Among them is the yellow musk cluster. Specimen plants of the China roses are planted in separate beds. Of this class are one hundred and sixty varieties, thirty of which are of the latest importation. We were surprised to find the Kerria (formerly Corchorus) japonica so perfectly hardy and resplendent with flower. The Irish yew is distinguished for its erect position, and the deep green of its foliage—a beautiful plant. The Messrs. Prince have near one hundred plants of the Hamiltonia oleifera or oil nut.

Among the trees which should be in every situation, where animation as it were is to be given to the landscape scene, the Silver Abeel tree should be found. The upper surface of the leaves being green, and the under side white, their very quivering in the gentle zephyr enlivens the eye. There were three species of the snow-drop tree, with their pure white blooms in wreath. The variegated or striped leaved hollies are interesting from the diversity and beauty of their foliage. The leaves of some are covered with prickles that occasion them to be called hedgehog holly.

It was satisfactory to us to find the following trees and shrubs perfectly hardy and acclimated: Three varieties of the Chinese calycanthus, the white, the yellow, and the grandiflora, the two former in an open situation, and the latter in a southern exposure—the Buxus balearica or Minorca boxtree—the spreading and upright cyprus tree—the Pistachia vera, or true pistachia nut—the Potinia serrulata of China—the Rubus rosæfolius, or double rose flowering bramble—the Ilex cassine—the Lagerstremia indica, in a southern exposure.

We noticed that the branches of the Shepherdia eleagnoides or Buffalo berry tree had been cut off, and on inquiry, found that the plant being a male, they had been carried to some female trees in another part of the garden, to fertilize them. A hedge of the Chinese arbor vitæ was particularly beautiful. Several thousand young plants were in growing for the same purpose.

The plot containing the collection of Peonies is extensive, containing 2500 plants of near fifty varieties. The Peonia moutan is one of the most magnificent of flowers, of which Messrs. P. have several varieties, some of them seedlings. They also have about 150 plants from the seeds of the Peonia whitleji, impregnated with the humei, and P. fragrans. These last are not yet in flower.

A fine specimen of the weeping beech with its peculiar and graceful curve of branches arrested our attention, also the Fagus cristata, or crested beech.

In the herbaceous department the species are planted in beds, and arranged alphabetically. This we consider veryc onvenient, both to the proprietors and to visitors and purchasers. In a large collection of violets the Viola grandiflora was conspicuous. There are at least a dozen new seedlings of Aquilegia canadensis.

Among the collection of Pinus we remarked the P. prinea, or stone pine, a tree recommended, as our readers will recollect, by Commodore Porter, for the excellence of its fruit.

The Messrs. Prince have bestowed much attention to the grape. They have quite a number of varieties from seed obtained by an admixture of the pollen of many varieties. It is their opinion that it is from seedlings that we must expect to obtain varieties of foreign vines, that will answer as well in our climate as our native grapes.

We observed a number of bee-hives, one of Mrs. Griffiths, and the others of the common construction. The bees in the latter had been all destroyed by the miller, while those in the former were in a thriving condition.

The garden of the Messrs. Prince being a commercial one, it cannot be expected that much attention will be given to picturesque effect. The dwelling of Wm. R. Prince, however, which is connected with the garden, is admirably located for display of taste. Mr. P. has by no means disregarded improvements. He appears rather desirous of crowding into his ornamental grounds specimens of all the beautiful plants contained in the commercial garden, than to illustrate the principles of correct taste in landscape gardening. The out-buildings on the whole premises are with few exceptions very old, and mostly unpainted, and consequently give to the premises a forbidding aspect.

Suggestions relative to Florists' Work, for June and July. By the Editor.

Our friend A. W. has sent us the following lines of Poetry, which, in his estimation, speak the language of that piety which arises from an impassioned love of flowers. It is from the pen of Horace Smith. Our readers will, we suppose, very cheerfully, before they commence the floral culture of summer, unite in singing a

HYMN TO THE FLOWERS.

Day-stars! that ope your eyes with man, to twinkle
From rainbow galaxies of earth's creation,
And dew drops on her holy altars sprinkle
As a libation.

Ye matin worshippers! who bending lowly
Before the uprisen sun, God's lidless eye,
Throw from your chalices a sweet and holy
Incense on high.

Ye bright Mosaics! that with storied beauty
The floor of nature's temple tesselate,
With numerous emblems of instructive duty
Your forms create!

'Neath cloistered boughs, each floral bell that swingeth,
And tolls its perfume on the passing air,
Makes Sabbath in the fields, and ever ringeth
A call to prayer;

Not to the domes where crumbling arch and column
Attest the feebleness of mortal hand,
But to that fane most Catholic and solemn,
Which God hath plann'd.

To that cathedral, boundless as our wonder,
Whose quenchless lamps the sun and moon supply;
Its choir the winds and waves—its organ thunder—
Its dome the sky.

There, as in solitude and shade I wander,
Through the green aisles, or stretch'd upon the sod,
Awed by the silence, reverently ponder
The ways of God.

Your voiceless lips, O flowers! are living preachers,
Each cup a pulpit, each leaf a book,
Supplying to my fancy numerous teachers
From loneliest nook.

Floral apostles! that, in dewy splendor,
"Weep without wo, and blush without a crime,"
O may I deeply learn and ne'er surrender
Your lore sublime!

"Thou wert not, Solomon! in all thy glory,
Arrayed," the lilies cry, "in robes like ours;
How vain your grandeur! ah, how transitory
Are human flowers!"

In the sweet scented pictures, heavenly Artist!
With which thou paintest nature's wide-spread hall,
What a delightful lesson thou impartest
Of love to all!

Not useless are ye, flowers! though made for pleasure,
Blooming o'er field and wave by day and night,
From every source your sanction bids me treasure
Harmless delight.

Ephemereal sages! what instructors hoary
For such a world of thought could furnish scope?
Each fading calyx a *memento mori*,
Yet fount of hope.

Posthumous glories! angel-like collection!
Upraised from seed or bulb interred in earth,
Ye are to me a type of resurrection,
And second birth.

Were I, O God! in churchless lands remaining,
Far from all voice of teachers and divines,
My soul would find, in flowers of thy ordaining,
Priests, sermons, shrines!

Hot and Green-House Plants.—The principal attention that these require is watering every evening in very dry weather, turning the pots of those that require but a little water on their sides during long storms, making frequent examinations for insects, regularly syringing them, turning them often to prevent them from being drawn to the sun on one side, pulling off dead leaves, and tying up and trailing runners and creepers. If the plants are in a drying situation, the small ones will require watering morning and evening.

Flower Garden.—Holland bulbs are generally lifted or taken up in June. Anemones and Ranunculus should be carefully taken up soon after their leaves begin to fade. Roses are to be pruned soon after they have done flowering—the old wood cut out, and the plant properly shaped. Should the season be dry, many of the shrubs will require watering, particularly those that were set out in the spring.

Propagation.—Most kinds of flowers and ornamental shrubs may be increased in number by either cuttings, layers, division of the plants, inoculation, and the various modes of grafting. Soon after the plants are done flowering, by some one of these operations they may be multiplied. Roses, and geraniums, for instance, are increased by cuttings; the former also by inoculation and layers. The unskilful however should not risk destroying a choice plant for the sake of getting more of it, still it is well for those who are fond of flowers to amuse themselves by acquiring a little practical information on the various methods of propagation, for this leads much to the science of the vegetable kingdom. Ladies should not fail to amuse themselves in trying their skill in the propagation of plants. To do it successfully, they should study nature a little—reflect what is requisite to insure success. If, for instance, they take a cutting, they should not put it in the ground where it is exposed to much sun, which will dry it up before it takes root. And a bud is more likely to grow on the north than on the south side of the branch.

Honorable Nature of Farming. By S. M.

To the Editor of the New-York Farmer.

Sir,—I have been much pleased with your sentiments on the dignity of the Farmer's calling, which you have frequently expressed in your columns, particularly in your editorial introduction, in the first number of the new series of the New-York Farmer. I have three sons, who are of the ages when young men begin to look forward into life, with a view of making choice of a profession. Mine are evidently inclined to almost any pursuit but that of farming, from an impression that it is not as honorable as many others. One wishes to be a doctor; another feels inclined to go to New-York, and become a clerk; and the third thinks the law alone is suitable to his ideas of that consequence and importance to which he hopes to arrive. Now, all this, Mr. Editor, is directly contrary to my wishes. I have a farm of upwards of 500 acres, and am desirous of dividing it into portions for my sons, as soon as they arrive at a suitable age. I could thus, under the ordinary blessings of Providence, make ample and sure provision for them—could have the pleasure in my declining years, of seeing my children comfortably situated, and pursuing a calling that naturally leads to many of those virtues and habits on which much of the happiness of life depends. With all my persuasion, I had not been able to give them any impression of the respectability of an agricultural vocation, until I, the other day, borrowed the numbers of the current volume of your Farmer. These numbers of your paper have accomplished more in the few days they have been in my house, than I have done by all my persuasion for years. I send you three dollars for the work, from the beginning of this year, and if it should be the means of causing my sons to look upon farming as one of the most useful and respectable pursuits in which intelligent and well educated youth can be engaged, I shall think you are entitled to half of my farm. Yours, &c. S. M.

Newark, N. J. May, 1833.

Remarks.—We hope S. M. will not forget us in his "last will and testament." We would be willing, however, to take up with one fifth of his farm deeded to us now, and will, on our part, guarantee that his sons will, if the New-York Farmer is thoroughly read by them, soon be brought to look upon farming as the most learned and honorable of human callings. While we are on this subject, we would direct the attention of our correspondent to the following extract from an Address delivered by the Rev. Gardner Perry, before the Essex County Agricultural Society, (Mass.) at the annual Cattle Show, in 1832:

"Another hindrance in the way of agricultural improvement is an impression entertained by many that farming is not so genteel and honorable as some other employment. How this feeling grew up, (a feeling in the extent to which it exists among us almost peculiar to New-England,) I shall not attempt to decide; sure I am of its existence and of its baneful influence, though, like the one just before mentioned, operating with somewhat diminished force. It has dried up the spirit and held the mind of many a noble and virtuous youth in bondage, suffused many innocent cheeks with a blush, prevented many ingenious and stirring spirits from going into that employment, whose taste and interest would otherwise lead them to it, and induced those who were engaged in it to work with less vigor, to seek for improvement with less interest, and frequently to turn all their originating and inventive powers into other channels, even when farming was still their real occupation.

"Who can look for a moment to the nature and operations of this society and the men who compose it, and not perceive how powerfully its influence must tend to remove an impression so unfounded in principle, so hurtful in its tendency. The example of the rich, the learned and distinguished men who give life and interest to this Society, comes in upon the soul of many a laboring youth like a refreshing and gladdening shower upon the thirsty land and withering herb.

"The story that Pickering, the founder, and for many years the worthy and efficient President of this Society, held the plough, handled the spade, and looked well to the stall, has a thousand times been told, and whenever told has poured fresh courage and joy into the mind of many a toiling youth, who, humbled under the impression of which I am speaking, was tempted to blame his fate, which, in his apprehension, had cruelly chained him to a farmer's life.

"Another obstacle in the way of agricultural improvement, is a too general impression entertained that learning is of little advantage in the business of a farmer's life. Were it not for observations on other subjects, which I wish for special reasons to make, I should like to dwell a little on this point. As it is, I must content myself by observing, that in my apprehension there is no other employment in which there is a constant demand for manual labor, where there is so loud a call for the aids of science, or where the suggestions of a well instructed mind would prove a more efficient help. For proof of the correctness of this opinion, I have no occasion to go beyond the limits of this county, or out of the catalogue of the members of this society. Were I to train a child for the labors of the field, my first care would be to make him familiar, not perhaps with either ancient or modern languages, though if possessed of common sense they would do him no hurt, yet with the physical sciences: in all which I would have him as carefully instructed as if he were to go into

professional life. Knowledge is power, power in the field as well as in the senate-house, power over matter as well as over mind."

Suggestions relative to Gardeners' Work for June. By the EDITOR.

The busy month of May is, indeed, past, but with it not all the labor. Much of the net profits of gardening will depend on what is done this month. Every failure of seed put in the ground the previous months should be attended to, that no portion of the garden be left unoccupied in the best possible manner. Lettuce, radishes, &c., will give place to other crops, particularly for beets and carrots. Those plants that are designed for seed should be carefully examined, so that they possess the most desirable properties.

INSECTS.—To prevent the depredations of these enemies to the gardener, much precaution is requisite. Keeping the ground free from weeds and frequent stirring of the soil are preventives. On this subject see page 136.

BEANS.—The later varieties of the dwarf kidney may be planted this month, and in July and August. The later varieties of pole beans may be planted in June.

BEETS.—The late varieties of this root will give sizeable plants in the fall, if planted this month.

BROCOLI, Cabbages, and Cauliflower, intended for seedlings, may be sowed early in the month, and the beds frequently watered and carefully guarded against insects. Those that are already in the beds may be transplanted, together with celery, cardoons, &c.

CARROTS.—The later varieties may be sown this month. A rich loamy soil is very congenial.

CUCUMBERS for pickles are planted this and the succeeding month. If the vines, particularly that part near the roots, are exposed to the burning sun all day, they produce less and die much sooner.

ENDIVE or Succory, Cichorium endiva, should be sown in June and July, in beds, to be transplanted.

LEEKS are transplanted in this and the next month, into good ground, in rows twelve inches apart.

PEAS.—Those who are desirous of peas throughout the season may plant in this and the two next months, first soaking the peas in water, and should the weather be dry before they vegetate, let them be watered towards evening.

POTATOES.—These may be planted until early in July. In gardens they are generally planted in drills. In summer we should suppose the potato ought to be planted so far beneath the surface that the hoeing will not ridge the ground so high as to expose the growing tubers to the drying heat of the sun, which is so very injurious to the qualities of the potato. In some gardens we perceive the rows planted close and ridged as high as those for blanching celery. This must expose them to become suddenly dry soon after rains—an alternation of wet and dryness is by no means congenial to this vegetable, which requires a uniform moisture. The seed end of the potato does not produce as large vines and tubers as the other end.

RADISHES.—The black Spanish and white turnip varieties are generally sown for late crops, although others will do well towards fall.

RUSSIA TURNIP, or Ruta Baga, for garden culture, Mr. Cobbett says, should be sown early in June in beds, and in the middle of July transplanted upon ridges that are three feet apart, and kept clean.

GRAPE VINES.—These should be carefully watched, and those young shoots that are not wanted for sustaining the vigor of the vine, and for next year's fruit, should be cut off.

HERBS.—Medicinal and aromatic herbs should be gathered while in flower, and put in a dry airy place. After they are dried they should be rubbed well, passed through a sieve, and put into bottles. They are thus much better preserved than when they are on dusty shelves.

Volatile Liniment. By CARLO. [For the New York Farmer.]

MR. FLEET,—Take one ounce of sweet oil or any other fresh drawn oil, one ounce of spirits of ammonia, shake them together, and they will form what is called *Volatile Liniment.* This preparation will be found a valuable article in family economy; in all cases where it is desirable to scatter, it will be found the most effectual of any remedy known in medicine. CARLO.

September 12, 1832.

Good Cider. By A. W. To the Editor of the New-York Farmer and American Gardener's Magazine.

MR. FLEET—While in New-York, from which place I have just arrived, I found three or four sloops from Waterford, loaded entirely with cider, of a good pure quality, remarkably pleasant—will keep so some time, they say all summer.

This Cider sells from 3 1-2 to 5 dollars per barrel. The object of this is that you may call public attention to the nature of this excellent beverage; a valuable auxiliary to the cause of temperance.

A large quantity of this Cider is manufactured in Saratoga. Mr. Tompkins, of Charleton, has had 400 barrels—J. N. Wells, of the same place, 200 barrels—Mr. Merrit, of Clifton, 4 or 500 barrels—and — Sears, of Balston, last year, 1100 barrels—besides many others.

These men purchase the cider principally of the farmers, made from the common apple of the country, then purify and otherwise improve it.

The attention of the farmers in the other parts of the state ought to be drawn to the profitable operation going on in Saratoga.

Yours, A. W.

Lansingburgh, May 2, 1833.

"NEW SPECIES OF CLOVER has been recently introduced into British husbandry, from Italy, under the botanic name of *Trifolium incarnatum*, some of the seed of which is advertised at Albany. From the notice of it in the Horticultural Register, it promises to be a valuable acquisition, as affording very early green food in the spring. The common method, to sow wheat ground as soon as the crop is harvested, at the rate of eight pounds to the acre. It produces a large burthen, which comes to use at the commencement of the following May.—[See Hor. Reg.]

REMARKS.—The above we take from the Genesee Farmer of the 18th ult., and is, we presume, from the pen of Judge Buel. How can it be said to have "been recently introduced," when it is known to have been introduced into Britain as early as 1596? Loudon says, "Trifolium incarnatum, an annual and native of Italy, has been recommended by an Italian Professor, to Sir John Sinclair, (Farm. Jour. Aug. 1821); but it is not likely that such a plant, which, even as an annual in our garden borders, has not a *fourth of the vigor* of the common clover, should ever be worth culture in this country." We think its producing "a large burthen," and its "fourth of the vigor of common clover," rather irreconcileable. Will the writer in the Genesee Farmer favor the public with further information?

Since the above was written we have received the following, which appears to throw more light on the subject:

Linnæan Botanic Garden, Flushing, May 18th 1833.

DEAR SIR,—I transmit you an account of a species of clover which appears to possess great merit, and of which I recently imported a small quantity of seed.

Yours, very respectfully,

WM. R. PRINCE.

Trifolium incarnatum, or Flesh-colored Clover.—The culture of this species has been latterly very much extended in Europe, and is now becoming general in many foreign countries. Although it only allows of cutting once, and is, when in a dry state, inferior to the white clover, there exist, nevertheless, but few grasses which afford such great advantages to the agriculturist, since it can be cultivated with so little care and expense, without deranging the requisite rotation of culture, and yields very abundant crops of forage.

It has also the valuable property of producing very early pasturage, and may be devoted to this object, or cut as green fodder, perhaps sooner than any other grass; thereby affording to the farmer an invaluable resource for the nourishment of his stock at a period when most requisite.

The seed is sown in August, or at the beginning of September, and usually upon the same fields whence grain has just been harvested, the ground being first prepared by a very slight ploughing. The crop may be cut for green fodder early in May ensuing, and from the 15th to the 25th of the same month, if intended for dry fodder, thus leaving the ground free to be made use of for a summer crop.

This clover has the advantage of succeeding on almost every kind of soil, and also offers a valuable resource for re-sowing any portions of fields where the other kinds of clover have failed.

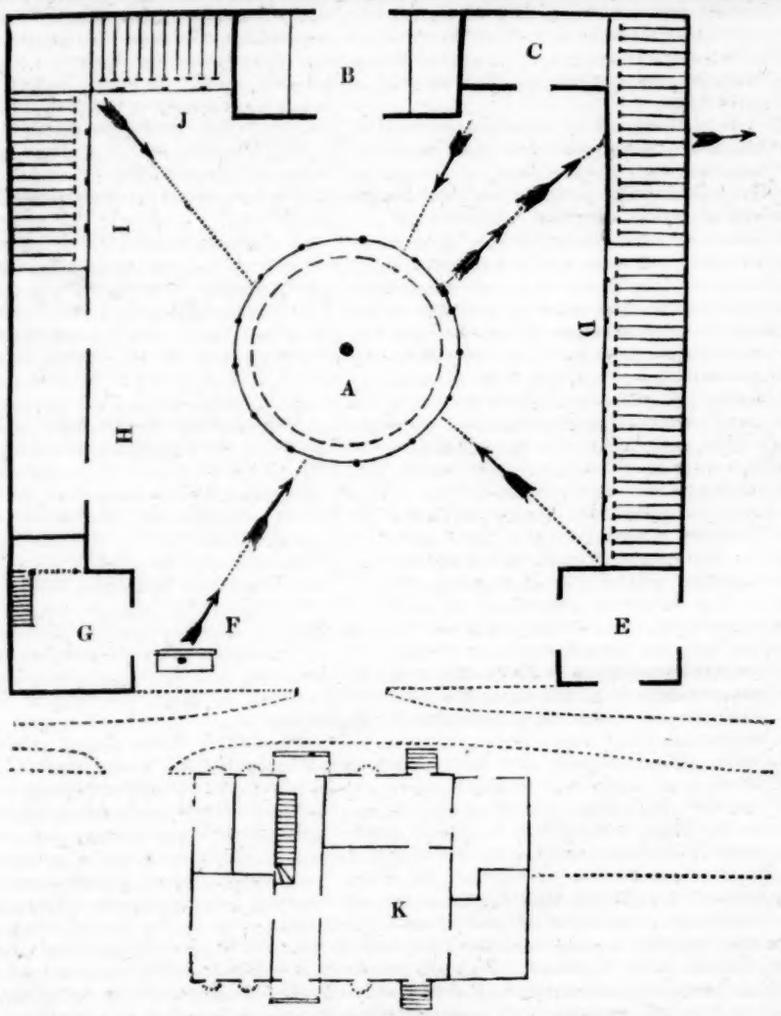
Choked Cows. By U. To the Editor of the New-York Farmer.

SIR—Having noticed in your valuable publication something said about relieving cattle that were choked with hard substances, I must relate one circumstance which may be of some value in such cases to those who know it.

A cow had swallowed an apple which stuck fast in her throat; the owner sent for a mallet to break the apple, by holding something firmly against the apple on one side the neck and striking with the mallet on the other; before the return of the boy with the mallet, my father coming up and finding what was the matter, placed his thumb and finger behind the apple and easily forced it to the cow's mouth again.

U.

Description of an Improved Stercorary—communicated in a Letter to Dr. James Mease, of the Agricultural Society of Philadelphia, by DAVID HOSACK, M. D. [For the New-York Farmer and American Gardener's Magazine.]



NEW-YORK, May 1, 1833.

DEAR SIR,—When you did me the favor of a visit at Hyde Park, during the last summer, you expressed a wish to receive from me a sketch and description of the shed or stercorary I have erected in my barn-yard for the purpose of preserving and improving the qualities of manure. Having many years since, when Professor of Botany in Columbia College, taught the principles of vegetation and agriculture as connected with that department of science, and discoursed upon the food of plants, the nature and qualities of soils and manures, you will readily believe that upon removing into the country and engaging in the practical duties of farming, my attention would be primarily directed to accumulate, preserve, and improve the contents of the barn-yard, as constituting the essence, or, as it may be called, the *vital principles* of successful agriculture. For this purpose, while my neighbors are in the habit of exposing their manure to the air and the sun, or accumulating it in cellars, I was induced to erect the shed, or umbrella, exhibited in the annexed plate. I should premise that the barn and other buildings surrounding the barn-yard occupy three sides of a hollow square, each side being 175 feet in extent. The stercorary is placed in the centre of the barn-yard, and is covered by a shed in the form of an umbrella; this is erected immediately above the manure heap, for the purpose of preventing the evaporation of the manure in summer, at the same time that it serves as a shelter for the cattle during a storm. The shed is about *forty feet* diameter; the centre post sustaining it is *thirteen feet* high; the posts in the circumference are *ten feet* in height and *ten* in number, allowing sufficient space for a cart or a waggon to pass between them for the deposite or the removal of the manure; the top is covered with common unplaned boards, and the whole roof is washed or painted over with a mixture of tar, oil, and sand, and colored with a small proportion of Spanish brown, by which composition it is partly preserved from decay. You will recollect that the barn-yard is so formed that the centre of it is excavated in the form of a dish, while all the other adjacent parts of it are gradually inclined to the centre, gravelled and rolled, so that every portion of the yard is preserved dry, hard, and clean. Small paved drains for conveying the *stale* from the cattle sheds and stables, communicate with the centre. In case of rain, the water from the adjoining buildings also flows to the reservoir, and when the dish or excavation may overflow, a covered stone drain, with an iron grating at its mouth, conveys the surplus liquid parts of the manure to a large tank, or cistern, holding about 60 hogsheads, situated in the garden, from whence it is raised by a pump at the pleasure of the gardener, who finds in this a valuable and rich resource for his vegetables. By this contrivance no part of the manure of the yard is lost. The above mentioned shed, by placing a frame work like the small braces of an umbrella at the upper part of it, is also devoted to the purposes of a roost for poultry; this, too, at the same time that it affords an ample and warm protection for fowls, in some degree attracts them to that part of the barn-yard, and thereby preserves the remainder of it relatively clean, for it is to be recollected that they spend a great portion of the day upon the manure heap, as well as lodging above it during the night. They are also regularly fed in the barn-yard, which attaches them to it, and prevents them from wandering far from their home. The fowls also have access to the cattle sheds, and to the sheep cellar beneath the barn, where they make their nests; by this arrangement, while the family is most abundantly supplied with the produce of the poultry yard, the fowls are protected from their natural enemies.

REFERENCES.—A, the stercorary; B, the barn; C, straw house; D, cattle and horse stables, with sheep cellar beneath; E, waggon-house; F, well and trough, for watering the cattle; G, cider mill, with the cider press adjoining, next to H; H, apartment for sheep shearing, with cider cellar beneath; I J, cow stalls, with a root cellar situated in the centre; K, farm-house and dairy beneath.

If this communication should contain any hints that may prove beneficial, I will be gratified in complying with your request.

[We subjoin the following interesting notice of Hyde Park, from an "Excursion on the Hudson," written by Dr. James Thacher, and published in the New-England Farmer, in 1830. The subject of increasing the quantity and improving the quality of the manure is one of so much importance, that we would respectfully direct the attention of Dr. Hosack to a plan of a Stercorary, on page 176 of this number, believing that a wall around the manure is an improvement, and that, if so, the Doctor will readily test its advantages. The reasons assigned against water being allowed to stand on the manure are, in our view, forcible.]

"At New-York, I embarked on board the North America, a formidable and splendid vessel, accompanied by my respected friend Dr. Hosack, bound to his noble residence at *Hyde Park*. Soon after leaving the wharf we past on the left Hoboken; a short distance above are the romantic and beautiful hills called Weehawken, three miles from New-York. Here occurred the tragical fate of the illustrious Hamilton, and this spot has obtained a reckless notoriety as the resort of duellists to adjust their misconceived points of honor. At Weehawken, on the western margin of the Hudson, commences a very singular and stupendous range of trap rock, called the Palisadoes. This range extends about 22 miles, some parts of which rise to 20 and others to 550 feet in height, presenting an almost perpendicular surface. Seven miles from the city, on a beautiful and commanding site on the east side, stands conspicuous that noble edifice, the New-York Lunatic or Bloomingdale Asylum, erected a few years since. It is a splendid fabric of hewn freestone, and was the favorite object of that philanthropist, the late Thomas Eddy, Esq. The ridge of high land which extends across York Island is called *Harlaem Heights*, well remembered for a line of fortifications in the early part of the revolutionary war. *Fort Lee*, on the west side, is 300 feet above the level of the water, and was evacuated in 1776, after the fall of *Fort Washington*, erected on the summit of a high hill on the east side, twelve miles from the city. The fate of this fort falling into the hands of the Hessians in 1776, together with 2,600 men, was among the first and most appalling disasters of the war. We passed, October 26, in distant view of Tarrytown, on the east side, the place where was captured the lamented Andre,—and Tappan on the west, where I witnessed the execution of that unfortunate officer on the 2d October, 1780, precisely fifty years since: an interesting retrospection! *Sing Sing*, or Mount Pleasant, is on the east side, 34 miles from the city. This is a noted place, where the bones of thousands of our unfortunate prisoners have been mouldering since the American war. The new state prison, now located on the bank of the river, makes a conspicuous and noble appearance. It is built of hewn white stone, quarried on the premises. The whole work was performed by the convicts. Its dimensions are 44 by 480 feet; it has a double row of cells, built back to back, four tiers high, and 200 in each tier, making in all 800 cells. The average number of convicts here is 550. The discipline is that of the Auburn prison, supposed to be the best now in use. The next object of interesting reminiscence is *Stony Point*, on the west side, 40 miles from New-York. This is a bold rough promontory, on the summit of which a light-house is now erected. It was a formidable fortification, wrested from the British by assault by the gallant General Wayne, July 16th, 1779.

Verplanck's Point, opposite, was also the site of a fort, and a splendid mansion is now situated upon it, occupied by Mr. Philip Verplanck. Here commence the celebrated *Highlands*. The majestic river resembles a vast canal traversing a wild forest; its banks on each side for many miles exhibit a sublime spectacle of mountain based on mountains, precipitous crags, and huge rocks, in wild confusion.

St. Anthony's Nose. This is a mountain on the east side, rising 1228 feet above the river, directly opposite old Fort Montgomery, from which may be seen the Catskill mountains, part of Connecticut, with a view down the Hudson, extending to New-Jersey, and Harlaem Heights, Long Island, &c. This mountain is called St. Anthony's Nose, erroneously supposed to be that which exhibits a profile of a human face, the name of which is derived, according to Washington Irving, from the nose of Anthony Van Corlaer, in early time.

West Point. Of all situations on the Hudson, this is incomparably the most important, more celebrated in the history of our revolution than any other military post, and fraught with objects of peculiar interest at the present day. The venerable Fort Putnam, occupying a majestic and commanding situation: the pride and boast of our military chiefs, from which we were prepared to hurl engines of destruction on the assailing foe, and which was shorn of its strength by the vile traitor's hand, is now reduced to a mouldering pile of ruins. There is now at this noted place a hospital, which is a fine stone edifice, with a piazza in front, and an extensive wing at each end. On a commanding eminence is a spacious hotel, in a style of much elegance, the keeper of which, Mr. Bispham, is famed for good cheer and obliging deportment. The United States Military Academy, and all the buildings appertaining to that excellent establishment, exhibit a magnificent view. These consist of six brick buildings, for the officers and professors, and the number of cadets is about 209, under the superintendance of the accomplished Lieut. Col. Thayer. This noble institution for the instruction of our youth in the important sciences of engineering and tactics, reflects much honor on our government and on our national character. In a conspicuous place on the Point, is erected a handsome monument of fine hewn marble; the inscription on it is "Kosciusko"—"Erected by the Corps of Cadets, 1828." Among the interesting recollections pertaining to West Point is Kosciusko's garden, situated in a deep rocky valley near the river, where, in 1778, I was amused in viewing his curious water fountain, spouting jets and cascades. "Clusters of lilacs are still growing which are said to have been planted by the Polish Patriot." Col. Thaddeus Kosciusko was a gentleman of distinction in Poland, and a favorite of the king. But having eloped with a beautiful lady of high rank, they were overtaken in their flight by her father, who made a violent attempt to rescue his daughter. Kosciusko was reduced to the alternative of destroying the parent or of abandoning the object of his affections. His noble spirit disdaining the atrocious deed, he sheathed his sword; and soon after, having obtained permission of his sovereign to quit Poland, he resorted to America, where he resolved to exercise his gallantry in a new sphere of action. He served in the engineer department, with the rank of colonel in our army. After or before the close of the war, Kosciusko returned to his native country, where he acted the part of a zealous patriot in heading the Poles against the Russians. He was severely wounded in battle, and died in Switzerland in 1817. A little below West Point, on the opposite side, is seen the small point from which the traitor Arnold took his flight and reached the British sloop of war Vulture, in September, 1780.

New-Windsor is on the west side, where is seen a low house, formerly the domicile of Mr. Ellison, in whose family General Washington for some time resided. Mrs. Ellison, who performed many domestic offices for the commander-in-chief, is still living, and is the wife of Mr. Bullis.

Newburg is on the west side. A quarter of a mile south of this village stands the old stone house in which Washington held his head-quarters at the time when the celebrated anonymous "Newburg Letters" created so much excitement in the army, and so much distress to the commander-in-chief.

Poughkeepsie, on the east side, is a handsome and pleasant village, containing two elegant hotels, famed for their excellent accommodations.

Hyde Park, is on the east side, six miles above Poughkeepsie, and divides the distance pretty equally from New-York to Albany. This pleasant village received its name from Dr. John Bard's country residence, now in the possession of Dr. David Hosack, and this is the extent of my present excursion. Landing at the dock on the premises, we were met by the Doctor's carriage, and conveyed up a circuitous road about half a mile to the mansion. The approach is truly enchanting, the house a palace, the landscape a rural paradise, the respectable occupants distinguished for the kindest hospitality. Hyde Park estate was the country residence of Dr. John Bard, and it was the scene of his latter days. After him his son, Dr. Samuel Bard,* erected a splendid house, and made considerable improvements, while his son-in-law, Rev. Mr. McVickar, erected a beautiful dwelling in the finest style of an English cottage.

From both these elegant seats the eye sweeps over the noble Hudson, which is nearly a mile in width, speckled at all times with the white spreading canvas, or the more formidable Fulton steamers. A richer prospect is not to be found, a more varied and fascinating view of picturesque scenery is scarcely to be imagined. The present proprietor, Dr. David Hosack, has, since the year 1794, been distinguished for assiduity and devotion to the practical duties of his profession, and fulfilling the office of teacher in various branches of medical science in the city of New-York. Many of his works have been republished in foreign countries, and among the honors which he has received from the learned institutions of Europe, he has been elected a fellow of the Royal Society of London, and also of the Wernerian Natural History Society of Edinburgh. His more recent work, the Life of the late Go-

* For a biographical sketch of the characters of these excellent men, see American Medical Biography.

vernor Dewitt Clinton, with an account of the origin and progress of the great Erie Canal, has been received as a splendid production, justy delineating the character of his illustrious friend, and redounding to the fame and honor of the author. Dr. Hosack sustained the office of president of the New-York Historical Society for several years, and in May, 1824, was elected president of the New York Horticultural Society. He was the founder and proprietor of the Elgin Botanic Garden, in 1801, the first and best in the United States, which has been purchased by the legislature of New-York for the purpose of completing a system of medical instruction. Although this eminent physician and philosopher has exchanged his professional labors during the summer months for the delightful scenes of rural and pastoral life, yet he retains a high sense of the importance of medical science, and the public is still to be benefitted by his literary labors. He is well qualified as a practical agriculturist and horticulturist, having devoted much attention to the nature of soils and the principles of vegetable life, when lecturing on botany and georgics. From the spirit displayed during the short period of eighteen months in his system of improvements, it may be predicted that, as an agriculturist, he will become no less eminent than in medical erudition.

He rises early, and soon repairs to the point where his presence is most required, allowing himself little relaxation either of mind or muscle. He never suffers his talent to be hid in a napkin, nor his wealth hoarded under a miser's key.

The mansion house at Hyde Park is elevated about 200 feet above the surface of the river. With its two wings, it presents a noble front of 136 feet, and is two stories above the basement. The centre or principal building has a piazza on both fronts; the west front is open to the Hudson, and the east looks over a spacious beautiful lawn, towards the turnpike from New-York to Albany. The hall, and several apartments above and below, are warmed by heated air from a coal furnace in the basement story. The south wing contains a rich and well selected library, consisting of 4 or 5,000 vols. purchased at the expence of $20,000. Here is to be found a collection of works in every branch of literature. In no private library is there a more complete collection of European and American Periodical Journals; scarcely a production of merit of this description but may be found in this collection, and the number is constantly increasing. The Doctor has also in his hall and gallery a valuable collection of paintings, by the first artists, both ancient and modern. At a proper distance, north from the house, is situated the coach house and stable, built of stone, in a chaste style of Grecian simplicity, and is 61 feet in front by 40 deep. At an equal distance south, is to be seen the green-house and hot-house, a spacious edifice constructed with great architectural taste and elegance, and well calculated for the most tender exotics that require protection in our climate. It is composed of a centre and two wings, extending 110 feet in front, and from 17 to 20 feet deep. One apartment is appropriated to a large collection of pines. Among the rich display of rare shrubs and plants, are the magnolia grandiflora, the splendid strelitzia, the fragrant mimosa farnesiana, and a beautiful tree of the ficus elastica or Indian rubber, about 8 feet high, 5 years old. Contiguous to the green-house is an extensive flower garden, in which is arranged, in fine style, a beautiful variety of trees, shrubs and flowers; among which stands that glory of the forest, the magnolia glauca, bearing large white flowers, perfuming the atmosphere with a delightful fragrance. The forest trees which surround the domicile are identically the natives which are found in our forest; some of the oaks are a century in age, and all are large, and so grouped and intermingled over the lawn, as to present at every step the most fantastic views that can attract the pencil of the artist. From the piazza, and from the bank on the west side of the house, we have a charming view, extending to the opposite side of the river, of the blue summits of the Catskill mountains, and many gentlemen's seats, and cultivated farms. Whether indeed we direct the eye across the river, or glance over its surface north or south, we have a variegated landscape, embracing the borders of the noble Hudson, from 20 to 40 miles in extent. In either direction the curling columns of smoke announce the approach of the Fulton arks, their decks covered with an assembled multitude, and impelled with astonishing speed, the bosom of the stream seeming to swell with pride as if conscious of the value of the burden it sustains. From the house gravelled walks diverge and extend in opposite directions nearly half a mile, exhibiting a diversified scenery of hills and dales, now descending a sloping declivity on the verge of a precipice, again ascending to a commanding plain, opening a scene of unrivalled beauty. At the termination of these romantic walks fanciful pavilions are erected, where visitors may contemplate a captivating display of nature's magnificence in these regions of wonder. From the turnpike road there are two gates of entrance into the premises, about half a mile from each other, and a porter's lodge is connected with each gate. The north lodge is 19 by 31 feet, with a portico projecting over the north and south fronts, each supported by four Grecian Doric columns. Two wings project from the sides, which serve as lodging rooms. This little building has been much and deservedly admired for its architectural beauty. The entrance gate is finished in a very neat and imposing style of architecture. Mr. Thompson, of New-York, is the skilful architect employed in the construction of these buildings. The south lodge, connected with a neat gateway, with the improvements of the surrounding grounds, present a very picturesque appearance. This is the most commanding point from which to view advantageously the mansion, green-house, stable and outhouses, which appear at considerable distance from each other in the extensive lawn. This avenue to the mansion is over a stone bridge, crossing a rapid stream, precipitated from the mill-dams above, and falls in a cascade below. The winding of the road, the varied surface of the ground, the bridge, and the falling of the water, continually vary the prospect and render it a never tiring scene.

Agriculture.—Hyde Park estate consists of a tract of about 800 acres of excellent land, bordering on the Hudson one mile and a half, and extending one mile back from the river; the turnpike from New-York to Albany passing through the premises. The farm comprises every variety of soil and aspect, and has not been exhausted by cultivation. It is well wooded, and supplied with numerous unceasing springs of pure water. A creek also meanders through the farm, furnishing falls well calculated for manufactories and mill-seats, and, being dammed at proper places, forms excellent pickerel and trout ponds. The 500 acres under culture yield large crops of hay and grain, and the soil is adapted to the production of every article of luxury and convenience which man can desire. Dr. Hosack commences his labors with characteristic ardor, and evinces a fine taste for agricultural pursuits. His improvements are not only in the buildings he has erected, and the embellishments of the pleasure grounds, but in the more solid operations of the farm, as levelling hills and precipices, opening roads and avenues, erecting bridges and turning water-courses. Many acres of rugged, hilly land, hitherto deemed almost inaccessible to the plough or not worth the labor, have this season been subdued, the stones worked into wall, and the soil sowed with rye.

Stock.—This consists of short-horned Durham, Devonshire, Alderney and Holderness, all recently imported. His flock of sheep, consisting of 600, are Merino, Saxon and Bakewell. Besides these, the Doctor has lately imported the Welsh, so highly celebrated for its mutton. Having been careful to introduce the best breeds, he is no less attentive in preserving them unmixed, by which he renders an important service to other cultivators. In front of his house, on the lower bank of the river, he has a park stocked with deer, and at present accompanied by 16 Saxon bucks and a pair of Surat goats. The buildings, comprising the farm-yard, consists of barns, stables, low sheds, calf and sheep pens, cider house, having a cellar to contain 100 barrels, and waggon house, forming the three sides of a hollow square of about 175 feet. The centre of the yard is dished out for the manure, over which is erected a covering in the form of an umbrella, about 40 feet in diameter, to prevent evaporation, and serve as a temporary shelter for cattle and a roost for poultry, &c. The excavation is so contrived as to keep the yard dry, and no manure is wasted, the liquid part being conveyed by a covered drain into the kitchen garden and nursery. The sheep yard is located between the barn and garden, and a spacious room is provided beneath the barn for the ewes and their young, when their condition requires a shelter. The hog pens are admirably calculated for the accommodation of about 70 swine, and to keep the different breeds separate, having a cooking apparatus in the rear. The *farm-house* stands a small distance from the farm yard, and is well arranged for the purpose intended. The cellar is devoted to the purposes of a dairy, being floored with stone flagging, and the windows wired to exclude flies. On entering the dairy I was struck with a view of a novel process of butter churning. This operation is performed by a single dog. The animal is placed on a horizontal wheel, the surface of which is covered with coarse cloth, to receive his claws; he is tied by his neck, and, by pawing with all his feet, the wheel turns under him and moves a crank and shaft connected with the churn-dash. The dog does not complain of his labor on the tread wheel, knowing that he is to be well fed as soon as the butter is produced, but he evidently appeared sheepish.

Apiary.—During my visit at Hyde Park, by request of Dr. H. I superintended the construction of an apiary upon my improved plan. The house is 30 feet long, and 2 tiers

in height, and will contain nearly 40 hives. The hives are furnished with two sliding boxes or drawers in the upper part, glazed in front, but shielded from light; they are withdrawn in the rear of the hives, and this affords the greatest facility for taking the honey without destroying the bees. The close house secures the hives from the ravages of the Bee-moth and from the weather, and may be opened occasionally for ventilation. It may with truth be asserted that this plan has been found by experience to possess advantages superior to any other. Dr. H. is now in possession of a family of bees without stings, which were sent to Dr. Mitchill from Mexico. He keeps them in his green-house, that they may enjoy an atmosphere similar in temperature to that in their native climate. There is on the stream belonging to Dr. H. the workshop of Mr. Hale, the ingenious inventor of the patent rotary pump, which the inventor assured me will discharge 160 gallons a minute, and will elevate a column of water to the altitude of 300 feet, which he had engaged to perform for a gentleman in New-York. The base of the machinery appears to consist of a circular box of brass, or other metal, furnished with fly valves, but no description from me can do justice to the subject. This pump may be applied to ships or fire engines. Dr. H. has two of them in operation, at his green-house and bathing-room. On inspection I find that the power is applied by turning a crank, and the water is forced out continuously. The principal part of this hydraulic machine is, I believe, original with Mr. Hale, and I observed to him, "you inventive geniuses are getting the world of mankind perfect, you leave nothing for posterity to do."

I met at Hyde Park an English gentleman, and an eminent landscape painter, who has been for some time engaged in taking landscape views of some interesting objects. Had Basil Hall been so fortunate as to have visited Hyde Park, the grand display and generous hospitality which he would have experienced could not fail of reminding him of some of the noble seats in his own country, and of correcting his unjust prejudices towards ours.

I was rejoiced, while at Hyde Park, to have an interview with an old friend and associate in the revolutionary army, General Morgan Lewis. Having suspended our acquaintance for the last 50 years, and unapprised of each other's situation in life, this unexpected meeting was truly gratifying. General L. is one of the very few survivors of his military brethren who possess the means of sumptuous living and domestic enjoyments. His magnificent mansion is located on the banks of the Hudson, 4 miles above Hyde Park. The front towards the river is ornamented with a colonnade, a spacious and lofty piazza walled on three sides with Venetian blinds. From this there is a fine view of the Catskill mountains, in all their variety and magnificence, and an extensive landscape of variegated scenery peculiar to these regions. Here resides, during the summer months, the venerable patriarch, surrounded by objects of interesting reminiscence, of glorious achievements and tragical events, with which he was familiar in days which tried the souls of men. He presented at his bountiful board a numerous family, even to the fourth generation, and although his hair is gray and his eyes dim, yet integrity of intellect is preserved, his war-worn frame is erect, and an excellent spirit dwells within him.

Fragrance of the Rosemary. By SENSORIUM.

To the Editor of the New-York Farmer.

SIR—Plutarch and Pliny, you will recollect, tell us of a nation in India that lived only on delightful odors. And the grave question has been started, whether the day may not come when human improvements will succeed in collecting and condensing odors, so that travellers may make circumnavigations of the globe, the gentlemen having their provisions packed in their walking canes, and the ladies in their thimbles. Be these opinions correct or not, allow me to present you the following, which I take from my Scrap Book:

"Rosemary grows abundantly, and without cultivation, in Spain, Italy, Provence, and Languedoc. In the latter place it grew so abundantly about the 16th century, that the inhabitants burnt scarcely any other fuel, and the perfume of this plant is said to have been smelt nearly twenty miles at sea.

"Every reader of taste will recollect Henry Kirke White's beautiful lines on this plant, which can be well introduced here:

"Sweet scented flower! who art wont to bloom
On January's frost severe,
And o'er the wintry desert drear
To waft thy waste perfume;
Come, thou shalt form my nosegay now,
And I will bind thee round my brow;
And, as I twine thy mournful wreath,
I'll weave a melancholy song,
And sweet the strain shall be, and long,
The melody of death.

Come, funeral flower! who lovest to dwell
With the pale corse in lonely tomb,
And throw across the desert gloom
A sweet decaying smell:
Come, press my lips, and lie with me
Beneath the lowly alder tree;
And we will sleep a pleasant sleep,
And not a care shall dare intrude,
To break the marble solitude,
So peaceful and so deep.

And hark! the wind-god, as he flies,
Moans hollow in the forest trees,
And sailing on the gusty breeze
Mysterious music dies.
Sweet flower! that requiem wild is mine;
It warns me to the lonely shrine,
The cold turf altar of the dead:
My grave shall be in yon lone spot,
Where, as I lie by all forgot,
A dying fragrance thou wilt o'er my ashes shed.

"Without entering into the extravagant opinions of the ancients respecting odors, we cannot avoid thinking that the effect which different smells and perfumes have on the mind, as well as the health, is not at present sufficiently attended to.

"Most people acknowledge to have felt the refreshing odor of tea and coffee before tasting them; and in heated rooms the fragrance of a cut lemon, or a recently sliced cucumber, has been observed to give general refreshment.

"The sprigs of rosemary were formerly stuck into beef while roasting, and they are said to have communicated to it an excellent relish. The leaves were also boiled in milk pottage, to give it an aromatic flavor; and before simples were so much out of use, the apothecaries made a distilled water, a conserve, and an electuary, from this plant, which also produces by distillation an essential oil, which was much esteemed for all affections of the brain. A decoction of the leaves in wine was used externally to strengthen the nerves, as well as the joints and weak parts of paralytic members.

"Arnaldus de Villa Nova states, that he has often seen cancers, gangrenes, and fistulas, dried up and perfectly cured, though they would yield to no other medicine, by frequently washing them with an infusion of rosemary in spirit of wine." Yours, &c. SENSORIUM.

New-York, May, 1833.

Stings of Bees. By CARLO. [For the New-York Farmer.]

MR. FLEET,—It is said that a little common Spanish whiting, moistened with water and rubbed on the part affected, will speedily remove the pain occasioned by the sting of a bee, wasp, or hornet. A little honey will have nearly the same effect. Though these stings are not very dangerous, yet they are painful, and the above expedients may be tried with perfect safety. CARLO.

FIELD MICE.—*Sir:* Do you know of any method by which those mischievous little creatures, called "Field Mice," can be extirpated, or their ravages arrested. They have done great and extensive injury to fruit and even young forest trees during the last winter.

TICONDEROGENSIS.

REMARKS.—We do not recollect of any method adopted for their destruction. Poisonous substances put where they most abound, and near those trees that are particularly valuable, may be serviceable. Some of our correspondents will confer a favor by answering the above inquiry.

Burns and Scalds. By CARLO. [For the New-York Farmer.]

MR. FLEET,—We have heard of many applications for burns and scalds. When these are small and not much inflamed, a little white lead, moistened with any fresh drawn oil, will soon remove the pain and heal the wound; but when much inflammation attends, mixed poultices should be applied over the dressing, of bread and oil. CARLO.

NEW PUBLICATIONS.

The New American Orchardist,—or an Account of the Most Valuable Varieties of Fruit, adapted to Cultivation in the Climate of the United States, from the Latitude of 25° to 54°, with their Uses, Mode of Culture, &c., &c.; also, a Brief Description of the Most Ornamental Forest Trees, Shrubs, Flowers, &c. By WILLIAM KENRICK. Boston—Carter, Hendee & Co. 12mo—pp. 424.

A Guide to the Orchard and Fruit Garden; or an Account of the Most Valuable Fruits cultivated in Great Britain. By GEORGE LINDLEY, C. M. S. Edited by JOHN LINDLEY, F. R. S., &c., Assistant Secretary of the Horticultural Society of London. First American from the last London Edition.—Containing Notes Explanatory and Practical, with Numerous Additions on the Propagation, Culture, &c., &c., adapted to the Climate of the United States, with the most Valuable American Fruits. By MICHAEL FLOY, Gardener and Nurseryman, New-York, and C. M. H. S. of London. New-York, 1833. 12mo—pp. 408.

These two works are brought out in a neat and handsome style of execution, particularly the former. They are devoted to the same subjects, but, in doctrine, diametrically opposite. Mr. Kenrick, adopting the opinion of Mr. Knight and others, that the old varieties of fruit have undergone a natural deterioration, has, accordingly, recommended and described only those that are now universally acknowledged to be superior; Mr. Floy entertaining a different belief, has retained the old sorts. The two works

differ in another important trait: Mr. K. describing none except those that succeed well in this country—Mr. F. re-publishes the whole of that part of Mr. Lindley's work devoted to fruits, and adds some of those not contained in it, but in repute in this country. Having said thus much, we shall proceed to lay before our readers those statements which we deem requisite for an impartial judgment of the merits of the two works.

In 1826 there were two hundred and twenty-four varieties of peaches growing in the garden of the London Horticultural Society; of these the Anglo-American book gives 76, Mr. Floy adding 16 of them. How many of the 60 he knows to succeed in this country we are unable to say. In reference to the London Horticultural Society, Mr. Kenrick says, "they have at least fifty varieties of native peaches of America, the selections from extensive native orchards of this fruit, raised in the middle and western states for distillation. All these, so fine in our climate, so much admired by travellers, with but *two exceptions*, are rejected as "*worthless*"—not being adapted to their latitude, and not arriving to their full maturity and excellence, even on the walls to which the cultivation is confined." Mr. K. gives 86 varieties, all of which, we take for granted from the title of his book, he knows to succeed well in our country. In reference to the time of ripening of the peach we find considerable discrepancy in the two publications. Mr. Floy in a note says, "the time of ripening in this country may be estimated about a fortnight, and in some instances, three weeks earlier than here stated, for all the peaches and nectarines." The Petite Mignonne, which is described by both, is said by one to ripen "the end of August," and by the other "the last of July." Here are four weeks difference. The White Nutmeg ripens the "middle of July," and "in July." The Malta ripens, according to Mr. Floy's book, "the end of August and beginning of September," and by Mr. K.'s, "in September." Now according to the rule given above, the Malta should ripen in our country the middle of August. Again, the Red Magdalen ripens, according to both works, "the beginning of September;" and the Bourdine, in both, ripens the "middle of September." We find the above discrepancies in reading but comparatively a small number of the peaches described. Now, it is easy to perceive that either the rule given above by Mr. Floy is not correct, or Mr. Kenrick has committed an error in the time of ripening. In respect to the color and flavor also we find considerable variation in the descriptions.

We had been led to anticipate some very valuable information from Mr. Floy, on the cultivation of the peach, particularly in reference to the cause and prevention of the Yellows, but must say we are disappointed, finding little additional to that given by Mr. Wilson in his Economy of the Kitchen Garden. He "hazards an opinion on the nature of this supposed disease," from observations made on his young Peach trees in 1832. These trees being immature in their wood, and in an exposed situation, were injured by an early and severe winter. They exhibited in the succeeding spring and summer all the appearances of the yellows. Hence, "I have," says he, "no doubt but these trees had the yellows, as it is called; neither have I any doubt concerning the cause of it." The preventive he recommends is budding on the plum stock, which ripens more in congeniality with our climate. His opinion is unsatisfactory from two considerations—First, it *appears* to be formed from too limited observations; and secondly, it necessarily implies that our climate, or rather winters, have undergone, within the last ten or twenty years, a material alteration—causing the peach, which once succeeded to admiration and astonishment, now to baffle all the arts of culture. We do not pretend to pronounce Mr. F. incorrect, but do regret that his opinion is not supported by more facts and reasonings.

Mr. Floy's work gives the description of 231 varieties of Apples, 16 of which he has added of American origin. Mr. Kenrick furnishes us with a list of 115 varieties that are described by himself or American writers, and recommends them as succeeding well in the United States, and 100 that are celebrated in Europe, and deserving of a trial in this country. Our readers may form some idea of the difference of climate between Great Britain and the United States from the single fact, that the excellent Æsopus Spitzenberg, which bears so well among us, "is too tender to succeed in this country [in England] without the assistance of a south or east wall." This fruit, by mistake we suppose, is placed in Mr. Floy's list among the autumnal fruit. Mr. F.'s Guide contains a selection of each kind of fruit for "a small garden." Nearly fifty kinds of Apples are recommended for this purpose. This number, our readers will think, is sufficient for a large farm instead of a small garden. In this number are included the sixteen described by the American editor. The question will arise in the mind of the reader, are all the above selected fruits certain of success in this country? Will they ripen in the same succession that they do in England? Will Mr. F.'s selection of near forty kinds of peaches for "a small garden" answer for this country, and ripen in such a succession that fruit may be obtained regularly throughout the season? Do all fruits ripen two or three weeks earlier in this country than they do in England, or do some in a less and others in a greater time? These are questions which we deem of importance, and on which, although "the alterations and additions are so numerous that it may be strictly called an American work," we find no information in its pages. Mr. Floy says "the variety of apples cultivated in this country is far too numerous to attempt any thing like a complete description—even to enumerate them would be a difficult task"; and yet he has sent out into the world, in "an American work," a description of *two hundred and thirty-one* varieties, many of which are unknown in this country. Had Mr. F. given a list of a suitable number of apples that are known to be excellent in this country, there would have been no objections to the re-publication of Mr. Lindley's.—Instead of this he furnishes us with a selection recommended by Mr. Lindley, with additions of his own, without informing us whether Mr. L.'s list is suitable for this climate. Notwithstanding the work has undergone so many alterations and additions, we are at a loss to know when the directions are given by the English and when by the American editor. The part of the book devoted to Propagation and Cultivation we supposed to have been wholly Americanized; and yet under the head of Gooseberry, for instance, we are told the bushes must be planted and pruned so as "to admit plenty of sun, and a free circulation of air"—directions adapted to the moist climate of England, and not to that of this country, where the gooseberry requires rather a light shade in connection with a free circulation of air, particularly to guard against the mildew. Six or eight pages are devoted to the culture of grapes, but, with the exception of a single short paragraph, almost wholly adapted to the hot-houses and walls of an English climate.

The question concerning the natural duration of fruit is an interesting one in a physiological point of view, and one of much practical importance. The two works, so far as Mr. Floy's editorial labors extend, are *pro* and *con.* in respect to this intricate and deep subject. Mr. F. speaks too cavalierly in reference to the doctrine, and by no means respectfully to either those who first advocated nor those who have adopted it. He says, "I am aware of the doctrine of trees running out by age in the sort, &c. Let that go for what it is worth: because the subject was broached by a *great* man upon *guess* work, every *little* one is ready enough to offer this as a plea for every failure of fruit." Mr. Kenrick appears to adopt his sentiments from the facts brought to light by eminent scientific men of Europe, and from his own observation in this country. M. Masson, Commissaire General, after giving a list of melting pears, once greatly celebrated, says, "these three last species sell from ten sous to two francs each, [about forty cents,] and their cultivation is neglected." M. Poiteau, in 1828, says, notwithstanding the unwearied efforts made in France to cultivate many of the old varieties of pears, yet all the attempts have resulted in "absolute nothingness." "The same writer," says Mr. Kenrick, "further informs us, that the celebrated Duhamel, during the long course of his scientific career, planted the seeds of all the best fruits which were eaten at his table, without being able to produce a single fruit worthy of cultivation. Others in that conntry, as the Alfroys, for a succession of generations, have adopted the same course, planting the seeds of the very best fruits, with no better success.

"It would thus appear that all the first varieties of apples and pears having been raised in successive generations of fruit, from the original crabbed and worthless origin, that after the improvement has gone on for five or six generations, to the production of a perfect fruit, it can be carried no further; that exhausted nature, if urged beyond certain bounds, recedes, and a retrograde course commences. For the seeds of the best fruits, which are sown, she generally gives back nought but the worthless. In illustration of the truth of this position, M. Poiteau has stated it as a fact, recorded by several authors, that the seeds of the Winter Bon Chretien always produce a detestable fruit. And Mr. Knight has positively asserted, that the seed of the *wild pear*, fertilized by the stamens of the blossoms of an ameliorated one, will yield a better fruit than the seeds of an ameliorated pear."

Of the list of pears described by Rosier, in 1801, nineteen varieties are recommended as the best. "These," says Mr. Kenrick, "are

every one of them known amongst us; and more than half of them, including the very best, are decidedly the kinds long since, from their defection, proscribed by those who cultivate for the markets of Boston."

Mr. Floy says a "plenty of evidence can be produced to explode this *whim*." He quotes Mr. Lindley, wherein the Golden Pippin and Nonpareil, which were said to be on the decline, are mentioned as succeeding to admiration, particularly in the "southern and midland counties of England." This, instead of controverting Mr. Knight's opinions, may be considered almost in accordance with them. Mr. Kenrick says, "It is asserted by Mr. Knight, that generally, the old varieties of fruit begin to decay first in the colder latitudes; and that a fruit, which there begins to decay, may yet be successfully cultivated in a *more southern* climate, or, what is equivalent, in the confined and warmer atmosphere of cities." In support of his sentiments in favor of "judicious management" being amply sufficient to renovate old varieties of fruit, Mr. Floy says the peach orchards in the vicinity of New-York "are doing well."—As far as our information extends, those who cultivate peaches extensively for the New-York market supply the places of trees injured by the yellows by new trees, at much expense and labor.

It will be perceived by our readers that both parties acknowledge the *effect* as existing, but are not agreed on the *cause*. Nothing but facts collected under a very great variety of circumstances will settle the point.

In respect to Mr. Floy's book, there are several objections. The number of the varieties is too great for practical purposes,—the descriptions, time of ripening, &c., are as they exist in England,—the selected list includes those that succeed well in England and some that are superior in this country, instead of a list wholly adapted to the United States,—and the part devoted to propagation and culture is sometimes in the language of the English and sometimes in that of the American editor, rendering it troublesome to the novice or general reader to derive the requisite instruction. In this last particular we think Mr. Floy has not been judicious in his editorial labors; for when he prefaces a paragraph with the words "By the American Editor," it is readily perceived whose productions we are reading; but when merely "By the Editor," it is often difficult to know whether the writer is J. Lindley or M. Floy. There is also, as we have before stated, too much of the cavaliering slang. Take, for instance, the following: "After," says he, "having thus freely given my observations on peaches and nectarines, and of the diseases, &c., to which the peach is liable in this climate, the reader will not expect that I should notice the many nostrums and specifics which have been given to the world by editors of periodicals and newspapers, whose knowledge of these matters are [is] generally very limited." In nine of ten cases, the "specifics" originate with those who denominate themselves practical men, some of whose names we could mention, and who would not like to have their "knowledge of these matters" considered to be very limited. The nostrums should not, therefore, be chargeable to poor ignorant editors of periodicals.

Had Mr. Floy given, at the end of Mr. Lindley's descriptions and his own additions, a suitable number of each kind known to be superior in this country, and arranged according to their time of ripening, and had he made that part devoted to propagation and cultivation wholly adapted to the American climate, he would have given a much more valuable book, one calculated for general circulation. As it is, we recommend to every one who is interested in the growth of fruit to buy the book. Independent of the other valuable information, Mr. Lindley's Introduction is alone worth the price of the book to any one engaged in rural culture.

Mr. Kenrick appears to have written his book expressly for American cultivators. Adopting the opinion that fruit trees have a limited duration, he has brought forward many varieties of fruit of American origin, many of which were first introduced to notice and described by distinguished growers of fruit in the New-England States. The descriptions of many of the old valuable sorts are also given. In addition to the fruit trees, many of the most ornamental forest trees, shrubs, and climbing plants, are popularly described. A select list of the most beautiful and desirable annual, biennial, and perennial flowers is given. The book closes with a "select list of fruits," which, with few exceptions, "have all been proved in our country and latitude, and they are the selections from very extensive lists of importations and of native fruit." How far he has been judicious in the adoption of new and in the rejection of old varieties—how far he is correct in his sentiments concerning the limited duration of improved varieties of fruit,—time and future observation can alone determine. True it is, that the practical effects, of this doctrine will be very great, if generally adopted. The great effort of cultivators will be to obtain new varieties, instead of improving and retaining the old ones. Of more than one hundred and fifty varieties of apples, pears, and peaches, of which Mr. Floy's *selected list* is composed, *less than thirty* are found in Mr. Kenrick's.

This subject is of much importance—our columns are open to communications.

Working Man's Companion. The Result of Machinery, namely, Cheap Production and Increased Employment, being an Address to the Working Men of the United Kingdom. Philadelphia, 1831, Carey & Hart, 18mo. pp. 215.

There is, perhaps, no more striking instance of the erroneous reasoning of a great portion of the civilized world, than that against the utility of labor-saving machines. Many suppose the tendency of those improvements that cheapen the products of the soil and arts is to lessen employment, and thereby become an injury to mankind; and when they can refer to what they have heard, seen, and experienced, they consider themselves infallibly right, yet nothing is further from the truth. They reason like the inhabitants of a valley whose horizon has for a long and tedious while been bounded by chilling and blasting clouds of rain and sleet, not believing that over all the country besides the sun is diffusing its genial and vivifying rays.

The book before us was published under the superintendence of the Society for the Diffusion of Useful Knowledge, and was occasioned by the destruction of agricultural machinery by the laboring classes in Great Britain. The object was to show them that in destroying labor-saving machines they were diminishing the sources of employment. Deeming it important that correct views should be as generally as possible entertained on this subject, we shall make a few extracts, which we trust our readers will find interesting. That in reference to printing illustrates the effects of all similar improvements:

"It is about 350 years since the art of printing books was invented. Before that time all books were written by the hand. There were many persons employed to copy out books, but they were very dear, although the copiers had small wages. A Bible was sold for thirty pounds in the money of that day, which was equal to a great deal more of our money. Of course very few people had Bibles, or any other books. An ingenious man invented a mode of imitating the written books by cutting the letters on wood and taking off copies from the wooden block by rubbing the sheet on the back; and soon after other clever men thought of casting metal types or letters, which could be arranged in words and sentences, and pages and volumes; and then a machine called a printing press, upon the principle of a screw, was made to stamp impressions of these types so arranged. There was an end, then at once, to the trade of the pen and ink copiers; because the copiers in types, who could press off several hundred books while the writers were producing one, drove them out of the market. A single printer could do the work of at least two hundred writers. At first sight this seems a hardship, for a hundred and ninety-nine people might have been and probably were, thrown out of their accustomed employment. But what was the consequence in a year or two? Where one written book was sold, a thousand printed books were required. The old books were multiplied in all countries, and new books were composed by men of talent and learning, because they could then find numerous readers. The printing press did the work more neatly and more correctly than the writer, and it did it infinitely cheaper. What then? The writers of books had to turn their hands to some other trade, it is true, but type-founders, paper-makers, printers and book-binders, were set to work, by the new art or machine, to at least a hundred times greater number of persons than the old way of making books employed. If the pen and ink copiers could break the printing presses, and melt down the types that are used in London alone at the present day, twenty thousand people would at least be thrown out of employment to make room for two hundred at the utmost; and what would be even worse than all this misery, books could only be purchased, as before the invention of printing, by the few rich, instead of being the guides and comforters, and best friends, of the millions who are now within reach of the benefits and enjoyments which they bestow."

The following dilemma respecting the horse churn justly excites risible emotions and burlesques the deluded laborers themselves:

"Amongst the many accounts which the newspapers of December, 1830, give of the destruction of machinery by agricultural laborers, we read that, in the neighborhood of Aylesbury, a band of mistaken and unfortu

te men destroyed all the machinery of
ny farms, *down even to the common drills.*
e men conducted themselves, says the
ntry newspapers, with civility; and such
s their consideration, that they moved the
chines out of the farm yards, to prevent
ury arising to the cattle from the nails and
inters that flew about while the machinery
s being destroyed. They *could not make their minds* as to the propriety of destroy-
g a horse churn, and therefore that ma-
ine was passed over. * * *
"Why should the laborers of Aylesbury
t destroy the harrows as well as the drills?
hy leave a machine which separates the
ds of the earth, and break one which puts
eds into it? Why deliberate about a horse-
urn, when they are resolved against a win-
wing machine?"
The truth is, every implement or tool was
ce a *new* labor-saving machine.
"The chief distinction between man in a
le and man in a civilized state of society
that the one wastes his force, whether na-
al or acquired,—the other economises,
is, saves it. The man in a rude state
very rude instruments—he therefore
stes his force: the man in a civilized
te has very perfect ones—he therefore
nomises it. Would you not laugh at the
dener who went to hoe his potatoes with
ick, having a short crook at the end? It
uld be a tool, you would say, fit only for
ldren to use. Yet such a tool was doubt-
employed by some very ancient nations;
there is an old medal of Syracuse which
resents this very tool. The common hoe
the English gardener is a much more per-
t tool, because it saves labor. Could you
e any doubt of the madness of the man
o would propose that all iron hoes should
abolished, to furnish more extensive em-
y to laborers who should be provided
y with a crooked stick cut out of a hedge?
e truth is, if you, the working men of
gland, had no better tools than crooked
ks, you would be in a state of actual
vation. One of the chiefs of the people
New-Zealand, who, from their intercourse
h Englishmen, had learnt the value of
ls, told Mr. Marsden, a missionary, that
wooden spades were all broken, and he
d not an axe to make any more; his ca-
s were all broken, and he had not a nail
gimlet to mend them with; his potato
unds were uncultivated, and he had not a
to break them up with; and that *for ut of cultivation*, he and his people would
e nothing to eat. This shows you the
e of a people without tools."
The effects of roads have a very great
decided tendency to advance the state of
iety:
"At Abbeyfeale and Brosna about half of
congregation at mass on Sundays were
efoot and ragged, with small straw hats of
r own manufacture: felt hats being worn
by a few. Hundreds or even thousands
men could be got to work for sixpence a
, if it had been offered. The farmers
e mostly in debt, and many families went
beg in Tipperary and other parts. The
dition of the people is now very different;
congregations at the chapels are now as
l clad as in other parts; the demand for
or is increased, and a spirit of industry is
ing forward, since the new roads have
ome available."
To form a correct view of what consti-
s labor-saving machinery, we must go back to the more simple condition of mankind. Our work says,

"We once met an old woman in a country district, tottering under the weight of a bucket, which she was laboring to carry up a hill. We asked her how she and her family were off in the world. She replied that she could do pretty well with them, for they could all work, if it were not for one thing—it was one person's labor to fetch water from the spring; but, said she, if we had a pump handy, we should not have much to complain of. This old woman very wisely had no love of labor for its own sake; she saw no advantage in the labor of one of her family being given for the attainment of a good, which she knew might be attained by a very common invention. She wanted a machine to save that labor. Such a machine would have set at liberty a certain quantity of labor which was previously employed unprofitably; in other words, it would have left her or her children more time for more profitable work, and then the family earnings would have been increased."

The next extract we make shows in a very striking manner how much the condition and employment of the whole world are affected by the introduction of some simple machinery into a distant country:

"The creation of employment amongst ourselves by the cheapness of cotton goods produced by machinery is not to be considered as a mere change from the labor of India to the labor of England. It is a creation of employment, operating just in the same manner as the machinery did for printing books. The Indian, it is true, no longer sends us his calicoes and his colored stuffs; we make them ourselves. But he sends us forty times the amount of raw cotton that he sent when the machinery was first set up. In 1781 we imported five million pounds of cotton wool. In 1828 we imported two hundred and ten million pounds—enough to make twelve hundred and sixty million yards of cloth—which is about two yards apiece for every human being in the world. The workman on the banks of the Ganges, (the great river of India,) is no longer weaving calicoes for us, in his loom of reeds under the shade of a mango tree; but he is gathering for us forty times as much cotton as he gathered before, and making forty times as much indigo for us to color it with. The export of cotton has made such a demand upon the Indian power of labor, that even the people of Hindostan, adopting European contrivances, have introduced machinery to pack the cotton. Bishop Heber says, that he was frequently interested by seeing, at Bombay, immense bales of cotton lying on the piers, and the ingenious screw, by which an astonishing quantity is pressed into the canvas bags. The Chinese, on the contrary, from the want of these contrivances to press the cotton so close in bags, sell their cotton to us at much less profit; for they pack it so loosely that it occupies three times the bulk of the Indian cotton, and the freight costs twelve times the price on this account. When the Chinese acquire the knowledge from other nations, which their institutions now shut out, they will know the value of mechanical skill, in preference to unassisted manual labor."

It is asserted by this British work, that, "we buy three million and a half pounds of raw silk from the stranger, employ half a million of our own people in the manufacture of it by the aid of machinery, and sell it to the stranger, and to our own people, at a price as low as that of the calico of half a century ago." The time will soon come when half a million of the people of the United States will be employed in rearing the silk worm, and in manufacturing silk.

"There is an article employed in dress, which is at once so necessary and so beautiful that the highest lady in the land uses it, and yet so cheap that the poorest peasant's wife is enabled to procure it. The quality of the article is as perfect as art can make it; and yet, from the enormous quantities consumed by the great mass of the people, it is made so cheap that the poor can purchase the best kind, as well as the rich. It is an article of universal use. United with machinery, many hundreds, and even thousands, are employed in making it. But if the machinery were to stop, and the article were made by human hands alone, it would become so dear that the richest only could afford to use it; and it would become, at the same time, so rough in its appearaoce, that those very rich would be ashamed of using it. The article we mean is a *pin*."

Contrary to the impressions of many, it is a fact, as mankind progress in civilization their lives are prolonged. It is easy to see that science, philanthropy, and religion, will still continue to increase the number of years allotted to man:

"Savages, it is well known, are not long livers; that is, although there may be a few old people, the majority of savages die very young. Why is this? Many of the savage nations that we know have much finer climates than our own; but then, on the other hand, they sustain privations which the poorest man amongst us never feels. Their supply of food is uncertain, they want clothing, they are badly sheltered from the weather, or not sheltered at all, they undergo very severe labor when they are laboring. From all these causes savages die young. Is it not reasonable, therefore, to infer that if in any particular country the average duration of life goes on increasing, that is, if fewer people, in a given number and a given time, die now than formerly, the condition of that people is improved; that they have more of the necessaries and comforts of life, and labor less severely to procure them? Now let us see how the people of England stand in this respect. The average mortality in a year, about a century ago, was reckoned to be one in thirty; fifty years ago it was one in forty; thirty years ago one in forty-seven; twenty years ago one in fifty two; and now it is one in fifty-eight. You see, therefore, according to this estimate, of which there is no reason whatever to doubt the accuracy, that where one person dies in a year now, two died a century ago. This remarkable result is doubtless produced in some degree by improvements in the science of medicine, and particularly by the use of inoculation for the small pox, and vaccination. But making every allowance for these benefits, the fact furnishes the most undeniable truth, that the people of England are infinitely better fed, clothed, and lodged, than they were a century ago, and that the labor which they perform is infinitely less severe."

Our readers can form some estimate of the contents of the book from the above extracts. Sufficient, we believe, has been said to convince them that in increasing and cheapening the products of nature and of art, they

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are ameliorating the condition of the human race. All improvements that add to the comforts and refinement of society elevate man and render him more happy.

NEW-YORK FARMER.

JUNE 1, 1833.

THE SEASON.—During the greater part of the month of April, and until the middle of May, so little rain had fallen that the spring was considered an unusually dry one throughout the country. Since the middle of May, showers in daily and hourly succession have produced a rapid growth of vegetation. These rains, in the sections of country where originate the rivers that run into the Atlantic, and those flowing westerly into the Mississippi, have been so copious as to produce a rise of waters seldom known as great at this season of the year, producing much damage. The following paragraphs speak for themselves.

"Brattleboro', Vt., April 30, 1833.

"At the date of the present writing, (12 o'clock, noon,) our entire stock of living animals, man and beast, is in a suffering condition from the unexampled warmth and sultriness of the weather. For some time past the season has been uncommonly dry, and at this time it appears as if the sun was about to lick up the last drop of moisture which lingers in our parched fields. We heard yesterday of five instances in which cattle at work dropped down and expired under the effects of heat, and there is reason to fear that the mortality among cattle from that cause has been very extensive.—The mercury in the thermometer stood yesterday at noon at eighty-five degrees, and it is now at eighty-four."

"Montreal, April 30, 1833.

"Yesterday the heat was as powerful as might be expected in the dog days; the thermometer averaged 85 in the shade, with an oppressive hot wind, rendered more disagreeable by the dust with which every pedestrian was enveloped. We never recollect a day of such steady and inconvenient warmth in the fickle month of April. This day the transition has been equally sudden, the thermometer scarcely reaching 50, the wind boisterous and cold, but the dust scarcely less unpleasant."

As far as our information extends, fruits, grains, and grasses, promise abundantly. The Southern Planter, printed at Macon, Ga., under date of April 27, says "vegetation is backward, but that the wheat crops are uncommonly promising—sufficient in quantity to supply the wants of that state."

Green peas were abundant in our market as early as the 21st, and strawberries on the 19th ult.

AGRICULTURAL CIRCULAR.—The following circular came to hand at a period so late, that, but for the unavoidable delay in the issuing of this number, we could not have inserted it until next month. We are gratified, however, by having an opportunity of laying it before our readers at so early a date, and most cordially commend to the attention of the public the subject to which it relates. M.

CIRCULAR.

To the General Corresponding Committee of the New-York State Agricultural Society, in the several Counties in this State.

GENTLEMEN,—In February, 1832, an association was formed to improve the condition of our Agriculture. It was incorporated by an act of the legislature the succeeding April, under the name of the "New-York State Agricultural Society."

The title, I trust, sufficiently explains its object; and as the field of its labors is to be co-extensive with the bounds of the State, it cannot fail to find, in every section of it, persons who will lend their aid in advancing the interests of Agriculture—a business in which seven-tenths of our citizens are directly engaged, and to which all owe their prosperity. To make the labors of the association more effective, they selected and appointed gentlemen in the different Counties as a General Corresponding Committee, who were expected not only to communicate freely with the parent society upon subjects connected with Agricultnre, but to aid in the formation of County Societies, which would materially assist the State Society in the attainment of its objects. The State Society do not presume to act the part of instructors, their great object is to collect and embody the practice, observation and experience of our most intelligent farmers, upon subjects connected with the improvement of husbandry, that they, through the press, may again diffuse the information thus gathered for the benefit of us all. The gentlemen who have been appointed as the Corresponding Committee in the several counties in this state, we trust, have been notified of their respective appointments, and we feel confident they will discharge the duties to which they have been called.

Arguments, surely, cannot now be required to prove the usefulness of Agricultural Societies. Simply to show what concentration of effort will do to advance important interests, we will point to what Bible, Missionary, and Temperance Societies have already done in aid of the objects they were intended to accomplish. Whilst they are extending their labors to teach and enlighten the moral and religious community, and urge all classes of society to the performance of imperative duties, we farmers, who cherish and sustain all, may at least take this lesson from them to advance the interests of our peculiar vocation. That our cultivated land may by improvement in husbandry be made to double, and in many cases to triple its produce, no intelligent man at this day will deny. This result, so desirable, cannot fail to be essentially aided by the labors of the institution we propose, and as direct evidence of their utility we will quote a portion of a letter of the First President of the State Agricultural Society, who is now in France, to its Corresponding Secretary, and which may be found in its printed proceedings in February last. He says, "the advantages of these institutions are demonstrated beyond the smallest doubt, by the considerable difference which exists betwen those parts of the country where they have none, and others where some of their best organised societies have exercised their influence. I could quote some of the finest parts of France, where the establishment of a good agricultural society has, within very few years, doubled the produce of the soil."

In many of the counties in this State, societies have already been organized and are now in successful operation. The coming fall will witness in them the exhibition of domestic products in all their variety, which, while it will excite to laudable emulation, cannot fail to give an impulse to agriculture which must materially improve it.

It is hoped that those counties in which societies have not been formed will follow these good examples; and as they successively organize, that they will favor the Corresponding Secretary of the State Society with a copy of their constitutions.

J. P. BEEKMAN,
Corresponding Secretary of the N. Y. State Agricultural Society.

Kinderhook, (Columbia Co.), May 30, 1833.

P. S.—The Corresponding Secretary will be happy to receive communications on the subject of Agriculture, and a copy of the constitution of those county societies that are organized, if not already sent.

☞ Printers in the several counties in this State are requested to give the above circular an insertion in their respective papers; by so doing, they will subserve the great interests of agriculture.

AGRICULTURAL FAIR IN NEW-YORK.—By the following resolution of the New-York State Agricultural Society, it will be perceived that a Fair is to be holden in October next. Farmers, and those in any way interested in promoting agricultural improvements, are requested to use their influence to carry the objects into effect.

Resolved, That a fair for the sale of live stock, seeds, and other products of husbandry and of household labor, be held in the city of Albany, on the second Thursday of October next, and one in the city of New-York, on the fourth Thursday of the same month; and that the civil authorities and agricultural societies of those places be requested to make preparations for the holding of those fairs.

AGRICULTURAL FAIRS.—The Annual Fair and Cattle Show of the Monroe County Agricultural Society is to be held in the village of Rochester, the 23d of October next.

That of the Saratoga County Agricultural Society, on the 9th of October. This spirited Society has offered Premiums to the amount of near 400 dollars.

That of the Agricultural Society in the town of Wheatland, in Monroe county, on the second Saturday of October.

The Monroe Society should, in reference to the plan of the State Society, have fixed the time of their fair earlier in October.

LADIES' HORTICULTURAL MAGAZINE.—H. F. Dickehut, Esq. Secretary of the Maryland Horticultural Society, has issued proposals for a monthly periodical, under the title of the Ladies' Horticultural Magazine and Floral Register. Such a publication is wanted, and would be of great utility. It will contain 32 demi octavo pages, at $5 per annnm. We hope Mr. D. will find ample encouragement for his praiseworthy undertaking.

ANGORA GOATS.—In another part of our present number, our readers will find an interesting account of these animals. In 1819 a considerable number of them were imported into France, and, by a report from M. Terneaux to the Paris Agricultural Society made a few years after, they increased and prospered equally with the native varieties. They were, we believe, introduced into England a few years ago; but, like most improvements in the agricultural world, a century or a half will pass before they will be generally introduced into the sheep raising districts.

LARGE ASPARAGUS.—Captain D. Chandler, of Lexington, exhibited before the Massachusetts Horticultural Society asparagus four inches in circumference.

SCIENCE OF AGRICULTURE.—Many people suppose farming to be perfectly an *a, b, c,* business, for which any blockhead is competent; but the celebrated Marshal says, "Agriculture is a subject which, viewed in all its branches, and to their fullest extent, is not only the most important and the most difficult in rural economies, but in the circle of human arts and sciences."

ROMAN GREAT MEN.—Varro, in complaining of the decline of agriculture in his days, says that the great men had deserted the corn-fields and vineyards, and employed most of their time in the circus and theatres.

LAND DITCHING.—One of the cheapest and most effectual modes of draining is to dig a ditch of convenient breadth, and to a depth of one and a half to two or three feet. First fill in with brush of hemlock, cedar, or other that is more convenient, with the ends all one way, and to the depth of more than half a foot, after being pressed or pounded down, and then fill up with the earth.

TO PROTECT CUCUMBERS.—A writer in the Genesee Farmer gives an instance of applying with complete success cotton over the hills of cucumbers, to prevent insects from eating off the cotyledonous leaves.

THE ORIENTAL CYPRESS TREE.—The American Farmer publishes a letter from Com. Porter, in which he gives a description of the Cypress Tree, that renders the Turkish cemetries so much admired and such places of resort. "It grows to a goodly size, and enormous height, as thick as they can stand; and may be propagated from cuttings as big round as the leg or arm." Seeds were sent to Mr. Skinner, of Baltimore, and to the Massachusetts Horticultural Society.

TO DESTROY THE BLACK AND GREEN FLY.—Take clay well worked with water, and cover the limbs and shoots with it. The first rain will wash it off and leave the plant free of these insects.

CURRANT WINE.—This is the season for the ladies to begin to think of having a little temperate beverage for their friends. The following is from the Genesee Farmer:

"Take eight to ten gallons of currant juice, to which add ninety pounds of common brown, or one hundred pounds of molasses sugar—put them into a brass kettle, which hang over a moderate fire—stir them up together well, and carefully take off the scum which rises to the top. Particular care must be taken that the fire is not so great as to make the juice boil,—no more heat is necessary than to cause the impurities contained in the sugar to rise so as to be skimmed off. When the liquor becomes pure, pour it into a clean firm barrel—then fill up the barrel with clean water, and let it stand (in the cellar) with the bung out to ferment. Let the fermentation continue as long as it will. The cask must be filled up frequently with sweetened water. When the fermentation ceases, bung up the barrel tight, and the process of manufacturing the article is ended.

My friend assured me that he could buy his currants, and manufacture his wine, for 37½ cents per gallon, and that he had frequently sold it at one dollar per gallon.

"Many a farmer has currants, which might, in this way, be made use of to great advantage; and those who have not might, in little time, and with little trouble, furnish themselves with an ample supply. Respectfully, W. P. W.

"Milton, March 22, 1833."

WORMS AND INSECTS.—Gardeners in the vicinity of this city complain much against the depredations of worms. Radishes and cabbages have been very much injured; in some instances whole crops have been destroyed. One gardener, who set out 25,000 cabbage plants, will not have 5,000 marketable ones. The worms eat the roots, and the plant withers and dies.

AWAKING HORSES.—A writer in the Turf Register says that a horse awoke before daylight travels with less spirit than one that has been allowed to sleep until light. He says horses do not lie down to sleep until towards morning.

TO DESTROY ANTS.—Open their nests and pour boiling hot water, or a little turpentine, into their holes. Pearl-ash sprinkled on shelves frequented by ants drives them away. Pieces of mutton suet, elder leaves, and wafers, are used for the same purpose.

TO DESTROY FLIES AND WASPS.—A mixture of pepper and sugar is said to do this effectually.

WORMS IN HOGS.—A writer in the New-England Farmer, after having fed his hogs with different substances, was unable to make them thrive. "When the hogs," says he, "were killed, however, the mystery was in a degree solved. Innumerable worms, resembling in some measure those voided from the human body, were found in knots and branches in the entrails. These kept up their appetite and prevented their thrift."

PRODUCTIVE VINE.—The American Farmer mentions that avine belonging to Mr. Willis, of Maryland, had last season upwards of twenty-five thousand bunches of grapes. The following gives the number this season.

Oxford, May 6, 1833.

We hereby certify, that we have counted the bunches of grapes, this day, that are on John Willis's grape-vine, in his yard, of seven years' growth, as accurately as we could, and have made allowance for good count. We find on it fifty-four thousand four hundred and ninety bunches, besides many more young bunches appear to be coming out, and we are fully of opinion w e have by the rule we went by, allowed at least three thousand for good count, that are already in sight. No young growth that had more than two bunches on it was counted; and we think at least one third or more are double bunches, and are only counted as single. CHARLES M. BROMWELL.
RICHARD MARKLAND.

SUMMER PRUNING.—Some of our most distinguished Physiologists consider summer pruning to be much less injurious to the tree than that performed either in spring or fall.

BUTTER.—The cream should not be of a temperature higher than from 55 to 60 degrees.—If the heat is greater the butter has less consisteney and is spongy.

MELONS.—The productiveness of melons and cucumbers is increased by nipping off the ends.

BED BUGS.—A steaming apparatus to destroy these insects, costing about three dollars, has been invented by John Sehley, of Georgia.

TO DESTROY SLUGS.—Cabbage leaves dried before a fire, or in an oven, and rubbed with unsalted butter or any fresh grease, and then laid in places invested with slugs, will in a few hours be covered with slugs and other insects. Mr. Loudon says he has tried this, and found it to succeed.

BEE MOTH.—Mr. Lemuel Grover, of Mansfield, places between sun-set and dark a furnace with a blazing fire, near the mouth of the hive, about two yards. He considers half an hour sufficiently long for every purpose, as they make their efforts at that time, and only for a few days.

WASH FOR FRUIT TREES.—We recommend the following to the special attention of our readers. It is appropriate to this month.

Although we have heretofore published the following, we again insert it for the benefit of young farmers and recent subscribers. It was recommended by Mr. Benjamin Wheeler, of Framingham, Mass. and first published, we believe, in the New-England Farmer, vol. iv. page 248.

"Dissolve 2 pounds of potash of the first quality, in 7 quarts of water, for the bodies of the trees. If the limbs are covered with moss or lice, I take a painter's brush, and apply the solution to the moss, &c. with care not to touch the leaves or buds. It may be done at any time of the year when we are most at leisure. Once in two to four years is generally sufficient. I have no general rule, however, but wash them as often as they appear to need it—which is always when the bark is not smooth."

Mr. Wheeler observes that "No person need be afraid of this application's injuring fruit trees; but it may be applied with the utmost confidence. I have have used it for nearly twenty years with great effect. I have recommended it to a great many gentlemen, but only a few have used it. Those who have tried it are much pleased with its operation. The reason that it has not been more generally used is that it has been fashionable to daub the trees with lime, clay, manure and other compositions, which take two or three years to wash off be fore the tree will look natural. When this solution of potash is applied, it has the desired effect immediately. It kills the moss and lice at once; and the first rain that comes washes the bark perfectly smooth; and gives it a fair, natural, healthy color.

It is said that this application was introduced by the late Governor Brooks, Medford, Mass. the summer before his decease, who believed that it not only accelerated the growth of the trees, but *was an effectual preservative against the borer.* It was applied by that gentleman once every year, either the latter part of May, or the beginning of June. The opinion that the above described wash is a remedy against the borer is corroborated by Messrs. Winships, proprietors of an extensive nursery, &c. at Brighton. In a letter to the New-England Farmer, they observe; "Five years ago, (preceding 1830,) we were exceedingly troubled, having, at the same time several thousand trees infested with borers. We applied the wash as recommended by B. Wheeler, Esq. of Framingham, and have continued it ever since the first week in June in pleasant weather, on from five to ten thousand trees, annually. The admirable effect has been astonishing; not only effectually preventing the destructive effects of the borer, but killing immediately the moss, and destroying those other insects usually found impeding the good health of the tree, also resuscitating and invigorating every kind of tree we have applied it to. We would recommend as a general wash,

one pound of potash to six pints of water; and for promptness of execution, the mariner's long handled tar brush, which may be had at the Agricultural Warehouse, North Market street, or the common paint brush will answer. Every other year will answer as a remedy against the borer, although the horticulturist will find himself richly rewarded by a more frequent application."

Management of a Dunghill. By ROBERT SOMERVILLE, Esq. of Haddington, Scotland.

A friend has put into our hands the following essay on the important subject of collecting and manufacturing manure. It will be perceived that the plan of having the manure in hollows, recommended by distinguished agriculturists, among whom is J. Buel, Esq. is not approved. We are fully of the opinion, that manure remaining for any considerable time trodden down in excess of wet, is very destructive to its nutricious properties.—[ED.]

The dung of quadrupeds is the most common, the most useful, though not perhaps the best managed, of any manure that is at present grown. Previously to entering upon the way of using it, we trust a few observations upon the present defective mode of treating it, together with some account of its properties, the means of collecting, preserving, and subjecting it to the process of fermentation, and of increasing its quantity, will be thought of service.

Mode of Management at Present.—When any considerable quantity, either of stable dung or mixture of animal and vegetable substances, is collected together under certain circumstances of heat, air, and moisture, they begin to ferment, and exhibit all the different phenomena of fermentation in a great or less degree, till the process is finished. If we then examine the mass, we find that the vegetables, of which it was originally composed, are decomposed and reduced to their first principles, and are again in a situation to afford food for new plants; by this means a perpetual succession is kept up, and the decay or death of any of these, which, at first view, we might be led to consider as a misfortune, serves for their reproduction.

This point settled, it will readily be admitted, that the more completely such substances are subjected to the process of fermentation, the greater and more beneficial their effects will be upon the soil. It is, therefore, an object of the first importance with every person concerned in the cultivation of the earth, to manage their manures in such a way that they might be completely fermented; and to have their dunghills so situated and constructed as to promote fermentation, and preserve the useful particles contained in the dung, both while the process is going on, and after it is finished.

A careful attention to these points will not only improve the quality, but, as we shall afterwards see, increase the quantity of manure in an astonishing degree.

When fermentation has taken place for some time, in a heap of manure consisting either of animal or vegetable substances, or a mixture of both, the first alteration that is observed is a change of color, and a sensible diminution of its bulk; as the process advances, the bulk continues to diminish, till the fermentation entirely ceases. The diminution is owing to the solid parts of the mass being brought more closely together. The fixed air and volatile alkali escape in the form of vapor, and the moisture falls to the bottom, where it either remains, if the dunghill is situated in a hollow, and has a bottom capable of retaining moisture, or runs off, if it is situated upon a declivity. When this moisture is collected and carefully analyzed, it is found impregnated with the salts contained in the dung, and if spread upon the soil in that state, it will contribute to fertilize the land.

In collecting and preparing dung in this manner, little attention has hitherto been paid either to the site of the dunghill, the encouragement of fermentation, or the preservation of the salts after the fermentation is finished; accordingly we observe the greatest part of dunghills either situated in hollows, and surrounded with water, which, by chilling the mass, very effectually prevents fermentation—or upon declivities, where they are totally exhausted of every drop of moisture. In these cases, the dung is thrown out carelessly: horses, cattle, hogs, and poultry, are allowed to trample upon and spread it, and even carts and waggons are driven over it.

By this treatment it is pressed into a mass too heavy and compact for the air to penetrate through a great part of it; the sides of the dunghill are scattered about, loses its moisture, and is either blown away by the winds, or returns to a state little better than dry straw; and, when the season arrives for laying it upon the land, the whole is taken out, without considering whether it is fermented or not.

Defects of this Management.—To a person who has paid any attention to the subject, the defects of this management must appear in a very striking point of view. The middle of such a dunghill from being hard pressed will be long in fermenting, and even in the end be very imperfectly fermented; and the sides, from being so scattered about and dried, will not be fermented at all. We need hardly observe that the consequences of this management will be a scanty crop, and disappointment to the farmer: this is the ordinary effect, where dung is laid even upon a plain surface.

Bad Effects of Dunghills being placed in a Hollow.—When the dunghill is situated in a hollow, and has a bottom capable of retaining moisture, the consequences are equally bad, if not worse. The whole of the rain that falls immediately from the clouds, together with the water from the roofs of the surrounding houses, and the natural moisture of the dunghill itself, lodge there and chill it, so as to prevent fermentation. It is certain that stable dungs in such situations will have the appearance of being fermented, but upon examination it will be found only decayed, and, from its being steeped so long in water, the greatest part of the salts will be extracted, and what remains, if carefully analyzed, will be found to contain scarce any other principle but vegetable earth.

Loss attending Dunghills being situated upon a Declivity, or Gravelly Bottom.—Where a dunghill is situated upon a declivity, or has a gravelly bottom, the loss is equally great as in the two former cases, as the whole of the natural moisture that is pressed out during fermentation, and which is strongly impregnated with the salts of the dung, either runs off or sinks into the earth; nor is this the only loss that is sustained—every shower that falls, by passing through the mass, carries off an additional quantity of the salts, till, by repeated washings, the dunghill is left in nearly the same situation as tea leaves, after a strong infusion has been drawn from them. Finally, by throwing it out in the careless manner already described, taking no pains to lay it up regularly, and allowing cattle, &c. to tread upon, and carts to pass over it, fermentation is long in taking place; even then it is partial and incomplete, and in place of producing good manure, abounding with rich, well prepared substances, it will for the most part be found to consist of articles only half fermented, which, from their parts not being properly separated, are very ill calculated to promote vegetation. Dung is the most likely to be best where the dunghill is upon level ground, and at some distance from the offices.

Having mentioned the present mode of collecting and preparing stable dung, and stated the slothful and defective manner in which it is generally done, we shall now proceed to offer some directions as to the methods of promoting fermentation, and preserving the salts after the process is finished; and lastly, of increasing the quantity of that valuable article.

To promote Fermentation in Stable Dung.—To promote fermentation in stable dung, two things are essentially necessary, namely, Air, and Moisture: without these, no fermentation will take place; and unless they are in due proportion, the process will be incomplete.

It is a circumstance well known to persons who are accustomed to prepare dung for hotbeds, that by laying it lightly together in heaps, and watering it gently, fermentation is immediately brought on. It is also known, that in the after stages of this business, hot-bed dung is as completely fermented in the space of fourteen or sixteen days, as that in a farm-yard generally is in six or eight months.

Every farmer ought, therefore, to institute this practice as nearly as the nature of his situation will admit; and in place of having his dunghill in the stable-yard, allowing carts, cattle, hogs, poultry, &c. to trample upon and disturb it, he should place it in some distinct situation, convenient for his offices, the urine from which should run into receptacles, from which it might be thrown, without the trouble of carriage, into the dung, where it would be of the utmost use in promoting fermentation.

When it is driven to the dunghill, the cart or waggon in which it is carried should not be driven over the dung as is commonly practiced; because as we formerly observed, the feet of the horses and the weight of the carriage will press it so hard, that the air will be in a great measure excluded, and by that means fermentation prevented.

If we inquire either of the farmer or his servant what is gained by this exertion, he will only be able to say that the load is laid upon the top of the heap—a labor which a man could readily perform to much better purpose in a few minutes; the whole cart load ought to be laid down by the side of the dunghill, and afterwards thrown lightly upon it with a fork—the trouble of doing which would be trifling, and the advantage immense.

If dung laid up in this way contains a sufficient proportion of moisture, it will immediately begin to ferment, and the process will be soon and completely finished. Particular attention ought therefore to be paid to this circumstance; and if at any time the dung is laid up dry, it should be immediately watered. In summer this will frequently be found necessary, especially during dry weather; and as most farms possess a sufficient command of water, it can very easily be done.

Where this method is had recourse to, the dung will be completely fermented in the space of six or seven weeks at the utmost, and in general will be found of one half more value than that which is made in the careless and slovenly manner we have described.

Situation and Construction of Dunghills.—The importance of good manures to all agricultural operations is such, that we should naturally have expected to find every thing relating to it made a primary object with farmers. On the contrary, no part of the rural economy has been less the subject of inquiry: the situation and construction of dunghills in particular, though highly deserving of notice, have for the most part been considered as a matter of indifference.

As was formerly mentioned, a hollow is improper for the site of a dunghill, from the circumstance of its lodging water, and preventing fermentation: a declivity is equally bad, as it serves to drain and carry off the moisture saturated with the richest salts of the dung: a gravelly bottom is worse than either of those, as the moisture sinks down into the earth, and is irrecoverably lost.

Proper Situation for a Dunghill.—The situation best calculated for the site of a dunghill is that which is nearest to a level, with a bottom capable of retaining moisture, and, if possible, covered with a shade. The whole should be inclosed with a wall of at least four or five

feet in height, with an open space at one end for carting away the dung. If the bottom is not clay, it should be laid with, and paved above, either with broad flags or the common paving stones used for streets. The American farmer may find it convenient to lay a floor of thick plank. At the end opposite where the opening is left, a reservoir should be dug, which might either be lined with clay, and built round with stone, or fitted with a wooden cistern made water tight, into which a pump should be put for drawing off the moisture daily.

This reservoir should be situated at the most depending part of the dunghill, with an opening in the wall immediately opposite to it. The pavement should have a number of channels of at least five or six inches deep, and the same width, all tending towards the opening; these channels should be well paved, and filled with brushwood before the dung is laid down; by which means they will be kept open, and the moisture find a ready passage to the reservoir. For better explaining the idea, we refer the reader to the annexed plan of a dunghill, with the proposed channel and reservoir. Every dunghill should be so situated as to have its longest sides run from east to west, surrounded by a wall, and covered with a roof. The wall on the south side of the dunghill should be of such a height, as to prevent entirely the sun's rays from touching the dung; on the other three sides, however, there is no necessity for its being so high: six feet from the ground will be quite sufficient, and the roof can be supported by pillars as in the figure.

The expense of a roof, which need only be thatched, will soon be compensated, not only by the superior quality of the dung, but by the conveniences which it will afford, as it may easily be converted either into a pigeon house, a poultry house, or a store for the smaller husbandry utensils.

Fig. 1.

Fig2

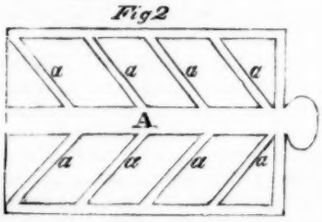

Fig. 1 represents an elevation of the building for the reception of dung; B, the reservoir; C, the pump; D, the roof.

Fig. 2 represents the ground plan: A the main chain channel leading to the reservoir; *a a a a*, the side channels terminating in the main one, A.

Advantages attending Dunghills constructed in this way.—The advantages attending this sort of dunghill will appear at first sight. The wall, by confining the dung, will keep it from being scattered about and lost, and will also preserve the sides of the dunghill from being dried and rendered useless by the action of the air. The shade will keep it from being chilled or deprived of its salts, by the rain passing through it; the wall will also prevent the moisture from escaping at the sides, and conduct it to the bottom. The pavement will prevent it from sinking into the earth; and the channels will conduct it to the reservoir; from whence it can be drawn by a pump into a barrel placed into a cart, and either spread immediately upon the field or mixed with other substances into a compost, or thrown upon the dunghill itself, it being the best of all ferments.

To increase the Quantity of Manure.—The quantity of manure may be increased by laying a layer of earth, leaves of trees, or any other suitable substance, on the bottom: and similar layers may be laid throughout the dunghill—the moisture passing through them, the same being returned from the reservoir, will completely saturate them; the entire will undergo a fermentation, and produce a vast quantity of manure; a quantity which can be so increased that the farm may be kept in a state of constant and profitable productiveness. The building should be, if possible, so placed that the urine from the stable, cow-house, &c. would pass by a channel into the reservoir.

[*From the New-England Farmer.*]

BROTHER JONATHAN'S WIFE'S ADVICE TO HER DAUGHTER ON THE DAY OF HER MARRIAGE.—Now, Mary, as you are about to leave us, a few words seem appropriate to the occasion. Although I regret the separation, yet I am pleased that your prospects are good. You must not think that all before you are Elysian Fields. Toil, care and trouble, are the companions of frail human nature. Old connexions will be dissolved by distance, time, and death. New ones will be formed. Every thing pertaining to this life is on the change.

A well cultivated mind, united with a pleasant, easy disposition, is the greatest accomplishment in a lady. I have endeavored, from the first to the present moment, to bring you up in such a manner as to form you for usefulness in society. Woman was never made merely to see and be seen; but to fill an important space in the great chain of nature, planned and formed by the Almighty Parent of the Universe. You have been educated in habits of industry, frugality, economy and neatness, and in these you have not disappointed me.

It is for the man to provide and for the wife to care and see that every thing, within her circle of movement, is done in order and season; therefore, let method and order be considered important. A place for every thing, and every thing in its place—a time for every thing, and every thing in its time—are good family mottoes.

A thorough knowledge of every kind of business appropriate to the kitchen is indispensable, for without such knowledge, a lady is incapable of the management of her own business, and is liable to imposition by her servants every day. But in these things you have been instructed.

You will be mistress of your own house, and observe the rules in which you have been educated. You will endeavor, above all things, to make your *fireside* the most agreeable place for the man of your choice. Pleasantry and a happy disposition will ever be considered as necessary to this important end; but a foolish fondness is disgusting to all. Let reason and common sense ever guide: these, aided by a pleasant, friendly disposition, render life happy; and without these, it is not desirable. Remember your cousin Eliza. She married with the brightest prospects; but, from her petulant, peevish, and complaining disposition, and negligence, every thing went wrong; and her home became a place of disquietude to her husband. To avoid this, he sought a place to pass away vacant time, where, associated with those more wicked than himself, he contracted the habit of intemperance, and all was lost—and poor Eliza was thrown on the charity of her friends.

Be pleasant and obliging to your neighbors—ready to grant assistance, when necessary. Be careful of their characters, and not readily believe an ill report. Throw the mantle of charity over their failings, knowing that we are all human and liable to err. Abhor a tattler, and give no place to the reports of such. However strong a provocation may be, never contend for the last word.

Let your bible show that it is used. Give no place to novels in your library. Let history, biography, and travels, be read, when time and opportunity admit—without interfering with the important duties of the family. Be not ignorant of the events of the time being, therefore read some journal of the day.

As to friends who may call on you—never be confused, nor in a hurry: treat them with hospitality and politeness; and endeavor to make them happy in their own way. Never teaze them to do this, or that, which they do not prefer. True politeness consists in an easy and pleasant deportment, and making our friends easy, and permitting them to enjoy themselves in that way which is most pleasing to them.

Speak with deliberation. The other sex tell us that, "the female tongue is never tired;" be it so: let it be regulated by reason and common sense.

At the close of the week, if possible, let all your work, for the time, be done; so that on Sunday you may improve your time in such a manner as will be appropriate to the day, and never, extraordinaries excepted, let your seat be vacated at church.

As to dress: decency is becoming to all, but extravaganee opens a door to want—follow the fashions of the day so far as decency and good sense will approve, but avoid singularity. Be not troubled for what you have not; but be thankful for, and take care of what you have. A Leghorn hat, loaded with flowers, will not cure the headache, nor a gold watch prevent the consumption.

Avoid night-meetings, at private houses, where every one is priest. These, I fear, have a tendency to affect the passions more than mend the heart. Who knows the resting place of an enthusiastic and fanatic mind! Let your evenings generally be spent at home.

As you have attended to the study of Botany and discovered a taste for flowers, I would not by any means draw your attention from so innocent and pleasing an amusement. But let your garden be small, well laid out, and the plants selected to your taste. See to the management of it yourself. It is a pleasant exercise, productive of health of body and serenity of mind. Let the order, neatness, and the display of beauty in your garden, be the index to what may be seen in your house.

One thing more: the management of domestics. See that all things go right in the kitchen. Let every thing be done according to order. Never dispute with a servant in what way a thing shall be done. Let your commands be promptly obeyed. Observe a mild dignity; but avoid all improper familiarity with those who may be placed under you. Be never hasty and impetuous; but calm and deliberate. Reprove when necessary, with mildness and determination; but never make a long harangue about matters of minor importance. Too much reproof, especially if delivered in a passion, or high tone of voice, is apt to lose its desired effect, and produce reaction on the part of the dependent. Dignity, decision and condescension, must be assimilated in such a manner as to command respect. Undue severity will so operate on the mind of domestics as to destroy respect, and create disaffection and hatred. Never charge a domestic with lying without irrefragable proof—then punish or dismiss him. To say frequently and upon all occasions to a domestic, "*you lie*," is perfectly ridiculous, and has an evil tendency. If he be a liar, you harden him; if otherwise, you injure his feelings and destroy his confidence.

I have done—you have my best wishes.

BEES—CURIOUS CIRCUMSTANCE.—As Mr. B. K. Crandall, (who resides within a short distance of this place,) was standing in the street a few yards from our office, a swarm of bees lit on his hat, covering it completely. At the moment of our writing this, he is on his way home with the strangest covering for a head, in this age of fantastical head-gear, that has been seen, "about these days." It would puzzle the ladies, we *guess*, to "follow this fashion."—[Niagara Courier.]

Letter from LE RAY DE CHAUMONT, ESQ., *read before the New-York State Agricultural Society, at their First Anniversary, held at Albany, on the 14th and 15th February,* 1833.

PLESSIS, (near Vendome in Touraine,) 16 Dec. 1832.

MR. J. BUEL, Corresponding Secretary, &c.

SIR,—When I resolved, last summer, to pay a visit to my native country, I was much pained with the idea that it would deprive me for a considerable length of time of the satisfaction of uniting my efforts with those of such of the members of our State Agricultural Society as were zealous in promoting its success. However, I was soon relieved, when I considered how many there were in our society who could render the same service; while, during my travels and stay on this side of the water, I could make them useful by observations and notes collected on my route, upon whatever might be worth communicating; also, by connecting our society with some of those in France, whose object is somewhat similar to ours. The alliance of such societies cannot but prove useful and produce improvements.

Having begun my travels rather late this year, my information will not be so interesting as I could wish; but I hope that during the other year I intend to appropriate to my stay in Europe, I will have collected facts more worthy the attention of our society. My travels have been through those parts of France, of the duchy of Bade and of Switzerland, which have much analogy, in respect to climate, to that of New-York.

GRAPES.—I will beg n by the grape vines.

I am still more of opi ion, since I left America, that serious attention should be paid to that important cultivation. I am more certain of the success which is to attend it in the state of New-York.

I have received, from the county of Jefferson, information that grapes perfectly ripe have been picked from vines cultivated in open ground, and the letter which mentioned it reached me here when they had not yet begun their *vendanges*, and were not expecting the grapes to be sufficiently ripe for several days to come. You must consider that I am here in that celebrated country for fruits, Touraine, which is the centre of France. They were much more backward in those countries I had just left and mentioned above, and in some parts of which wine is made in quantity.

You know how uncommonly severe and long was last winter in the state of New-York, and I must observe that in this country it was one of the mildest, and the spring very fine, as well as the summer; this last season however was rather too dry. I was still more astonished at the comparative quickness of the growth of the vine, and the abundance of its production. It is so much in our favor, that I not only created wonder, but yet a sentiment bordering upon entire incredulity, when I mentioned the produce of a cutting planted along the house of Major Brown, late in 1827, and which had produced above one hundred fine clusters, perfectly ripe, in the middle of September, 1830, and more than three hundred the following year, at the same period, equally good and fine flavored; a fact which has been well ascertained by the agricultural society of the county, and published afterwards in their transactions.

My great objection, and I must say the only one which I had, and even published formerly, to the cultivation of the vine, with a view of making wine, is removed by the happy result of many inquiries and observations I have made, in examining attentively a method very different from the one which is uniformly adopted in all the vineyards of the middle and northern parts of France. There nine-tenths of the work at least is made by the hand of man, and part of it so painful and hurtful to the body as to injure materially the workmen; while in many parts of the south, and in some parts of Switzerland, where very good wines too are made, the most painful and more laborious part of the cultivation of the vine is achieved by the work of horses and cattle. The difference is such in favor of this country, between the two methods, that I do not hesitate to say that, every thing considered and calculated, this last method, with some improvements I will suggest, will not occasion you more expense than in France, to produce the same quantity of wine that would be obtained by the other method, which would cost you nearly three times as much as in France. This result is not only occasioned by the difference of the price of labor of men in the two countries, which in the preferred method is substituted for the greatest part by the work of animals, that do not cost more in the state of New-York than in France, and which can be fed cheaper; but because this preferred method owes principally its greater produce to its having a much greater proportion of land consecrated to the same quantity of vine stalks, and that the land is considerably cheaper than here. Mr. Thiebault in comparing the two methods, to prove the immense advantage of the one he recommends, does not calculate the produce of an acre, but of the number of stalks. He says "that 2000 stalks, trained according to this method, will produce yearly 26,000 gallons of wine; while, on the other hand, 6000 stalks trained in the ordinary way, produce, in common seasons, only from 780 to 1300 gallons, and in the very best seasons only about 2600 gallons." This enormous difference of 30 to 1, I do not warrant, but only that there is a considerable one. Mr. Thiebault adds, that the increase in quality is also considerable.

Considering the comparative value of the land you would appropriate to the cultivation of the vine, with the same nature of land in Europe, and that there is a difference of at least nine-tenths in favor of the United States, I would propose an altogether different and more economical method in the first planting of the vine. I would set the roots and wooden posts a rod apart, instead of eight feet, as recommended by Mr. Thiebault, leaving, as he does, the space between for the cultivation of grain or other productions, as preferred by the farmer. The trenches, two feet broad and one foot deep, should be made with the plough and the scraper, which can be equally useful and convenient in covering the roots. Some alteration and economy could be made in the hand labor, when we take into consideration that a considerable part of it can be done by children during the vacations. On the line of that plantation I would recommend planting, in an eastern and western direction, a mulberry tree alternately with the grape vine. The wooden post will for several years be the supporter of the grape vine, but it will probably be rotten and rendered useless when the vine will have sufficient strength to need no support for its stalk, but would require some aid to keep its lateral branches in the desired position. The mulberry tree will then answer the purpose: it must be taken care of at all times, and will pay not only the expense but yield a handsome benefit for those who will pursue the cultivation of silk, or who have in their neighborhood some one cultivating it. At all events, their cattle would relish that food which would come for them in a very good season. The tree must be trimmed in such a way as to have one single stock, and a very small head, which when arrived at the height of about eight feet must be regularly trimmed twice in the fine season, when its foliage is most suitable to the feeding of worms. In that way the mulberry will give no injurious shade either to the vines or to the grain, or plants, which are to be sown between the ranges. You will observe that in that way of planting and cultivating the vine, the cattle, as I have stated in the beginning of this article, will do the essential part of the work; and that they not only afford the greatest help for cultivation, but yet come in for the hardest share at the time of collecting the fruit. I will one day give more details upon what is to be done in the years which will follow the planting and first growth; and you may rely upon my readiness to transmit to the society what further information they can ask from me. I intend to examine more minutely this kind of cultivation, and ascertain as near as I can the real produce. Meanwhile, I think the society may boldly recommend the cultivation of the vine, chiefly in the west and north of the state. To support this advice, I cannot better conclude this article than by quoting what I notice with pleasure in a letter I have just received from the respectable secretary of the Agricultural Society of Jefferson county. Among the different valuable details he gives me of the cattle-show and fair, which took place the 26th September last, I find the following: "A curious exhibition of the process of silk-making was interesting; and Dr. Guthie accompanied his specimen of grapes with a letter, stating that the culture of the grape was as easy and certain in this country as that of raising apples, or any other of the vegetable productions."

SILK.—The next important article is the culture of silk. All I have seen and heard upon that subject, since my arrival in Europe, confirms me in the opinion that the United States in general are as well, if not better, adapted to the cultivation of the mulberry and the culture of silk, than the most favored countries on this side of the water. The cocoons that we raised last year at Le Raysville, with so little trouble and such an imperfect knowledge of the proper management of this delicate worm, have been much admired by those capable of judging, to whom I presented them for examination, and the silk thought of the very first quality. I have ascertained that in the duchy of Bade they rear the mulberry tree in very indifferent soil, rather poor, and cultivated the silk with success. Certainly where the worms are educated, the season is far from being as favorable to them as it is in the north of the state of New-York. I hope that the efforts of the society for encouraging the culture of silk will have been successful, and I am very anxious to see the report which will be made to the society on a subject of such vital importance.

HEMP.—Wherever I have travelled I have

observed that they cultivate hemp. I was struck with the immense expense that cultivation cost, chiefly in manure. If now and then I met with some privileged piece of ground, which by its fertility did not require such a quantity of manure, the price of the soil was so high that the mere interest of the same would have purchased, to my knowledge, in either Jefferson or Lewis counties, a similar quantity of land, as good at least for the production of hemp, and where the cultivation of it will not cost so much. I hope our society will think it advisable to recommend to the farmers a particular attention to the raising of hemp, wherever the soil is favorable for its cultivation.

Fodder.—I have noticed a curious method of drying fodder by fermentation. I think it worth giving you some details about. They put the hay in hay-cocks on even ground, very soon after it is cut, i. e. 12 or 15 hours, in piling it very equally and treading it down. Rain does not injure it materially. The diameter of a hay-cock does not exceed four feet, and the height equal to 2-3ds of this diameter. As soon as the heat produced by fermentation is too great for the hand to remain in the middle of the hay-cock, say 20 or 24 hours after, they use all diligence to spread the hay, bad or good weather, for it is spoiled in a few hours. Three or four hours are sufficient to dry the hay entirely. The outer part, which is not fermented, is put aside and treated by the ordinary means. This hay can be preserved several years without experiencing any deterioration. It has a vinous smell, which cattle like when once accustomed to it. It is very well adapted to the use of cattle in general, and particularly to horses. They can eat of it freely without inconvenience, even when it is recently made. This method is chiefly advantageous to clover and luzerne, because it dries them sooner—it prevents the leaves from falling, and preserves the nutritive principle.

Roller.—I have always been an advocate of the roller, and have seen with regret that it is far from being found in every farm in the state. I am still more convinced of its utility since my last travels through France, as also of the benefit resulting from the harrow, respecting which I can recommend the following method: In the spring, when the wheat is dry and suffering, pass on it a pair of small harrows. About a month after, the operation can be repeated. The improvement will be very sensible a short time after the first labor, and the result will be a considerable augmentation in the crop, and more straw. You need not fear to unroot the plant. Not one in five hundred will be destroyed; but if there are some lost, the others will supply their place largely from the benefit they will receive in the operation. In following this method, you can sow your wheat thinner than is commonly practised, and provided it is sown regularly you can thicken it by the harrow. The straw becomes then stronger, and the wheat seldom lodges. It saves you also from sowing as great a quantity of grain.

Barley.—There is a species of barley called *May Wheat*, cultivated in the north of France. The ground is prepared in the fall by deep ploughing, and a second one in dry weather immediately before sowing, which is thin, and done in the first days of April. It ripens at the same time as rye. It has a strong growth of two feet. Each stalk gives commonly 12 or 15 heads. It produces about thirty bushels to the acre. Very good bread is made with half flour of barley and half of wheat. It requires better land than common barley.

Agricultural Societies.—I wish that any member of the agricultural society of the State of New-York, not sufficiently persuaded of the great utility, nay of the necessity, of encouraging the increase of agricultural societies in different parts of our state, had been with me in my travels. I regretted that establishments of that kind were not more frequent, and still more that not one of them was organized and regulated as it ought to be to promote the good contemplated. But yet the advantages of these institutions are demonstrated beyond the smallest doubt, by the considerable difference which exists between those parts of the country which have none and the others where some of their best organized societies have exercised their influence. I could quote some of the finest parts of France where the establishment of a good agricultural society has within very few years doubled the produce of the soil. But my letter is already too long to write whatever I could say upon this subject. I must conclude, by tendering my services to our society, and assuring its members of my readiness to do all in my power to subserve its best interest. I remain, very respectfully, your obedient servant,

Le Ray de Chaumont.

Bull-Hunting in Washitaw. [From the Sporting Magazine.]

Perry Point, Miss. Dec. 8, 1832.

Mr. Editor,—The wild bull inhabits the forest of Washitaw, which lies on the west side of the Mississippi river, extending from the territory of Arkansas into the state of Louisiana—three hundred miles in length, from north to south, and one hundred miles in width, from east to west. The wild tract of the hunter, and no other, strikes the Washitaw river in the middle of this primeval forest—flowing solitary grandeur from its source, above the Hot Springs, in Arkansas, to its mouth at Black river. The forest stretches one hundred miles below Red river, into the state of Louisiana.

The wild bull of the woods is never to be seen in the fields or prairies. His progenitors for several generations, if not for ever, have been bred in the forest. Unlike the tame bulls, they are of a deep black color, and the cows generally a dark iron grey. This fact makes some of the hunters think that they are not descended from the same stock as the tame bull, but are a distinct variety of the same species. It is not my object to settle, but merely to suggest this doubt. Perhaps wild animals, when domesticated, assume a variety of colors, which they have not in a state of nature.* Color makes the only perceptible difference betwixt them and the tame bull, except what it produces by their wild habits. They are almost as shy and fleet as the deer, and have bottom to stand a long chase, and when overtaken defend themselves by fighting the hunters and dogs. The dogs by themselves are never a match for the bull, and seldom attack, but hold him at bay until the hunter shoots him. This sport is dangerous, for if a hunter wounds the bull, or his rifle misses fire, the bull rushes at him, and the dogs that attempt to arrest him are scattered and frequently killed.

* No doubt of it. But will they, on being left to breed in unrestricted nature, beyond the care and control of man, resume an uniform color?

The manner of hunting the wild bull cannot be better explained than by stating the particulars of a hunt that took place near the Washitaw river. At sunrise, in the month of November, 1830, Mr. Strong started on a hunt in the forest with three companions, neither of whom had ever seen a wild bull, and to gratify their curiosity, he imprudently agreed to go with them. They were all on horseback, and armed with rifles. Their pack consisted of about a dozen—not of any distinct breed, but selected on account of their ferocity. They had not proceeded far before they discovered fresh tracks of a bull, and put the dogs on the trail. After they had pursued about three miles at speed, it was ascertained by the barking of the dogs that they had the bull at bay. The hunters then dismounted, and leaving their horses in charge of one person, the rest proceeded to the spot on foot. When they came up they saw the bull facing the dogs, with a cover of green briars in his rear. The timid companions of Mr. Strong, quailing at the fierce looks and threatening horns of the bull, could not be prevailed on to approach within point-blank shot of the enraged beast. Mr. Strong proceeded alone, keeping a tree betwixt him and the bull, and discharged his rifle at his head. The gun hung fire, and the bull pawing the ground, and throwing down his head at the instant the gun went off, the ball passed over it and wounded him in the neck. The bull, who kept his eyes fixed on Mr. Strong all the time he approached, as if expecting a salute from his gun, as soon as he felt the sting of the wound, bounded directly at the smoke of the powder, scattering as he went the pack of dogs that rushed betwixt him and their master, as if they had been a swarm of flies. Mr. Strong called in vain upon his companions to fire. They were too far off, and would have been afraid to do it if they had been nearer, knowing that the bull always turns on the last gun that is discharged. In the meantime some of the dogs were crushed beneath his hoofs, and others that came near his head were thrown amongst the lower limbs of the trees. Several of them were on the ground at the same instant, going up and down like the balls of a juggler. The dogs were soon scattered, and before Mr. Strong could reload the piece, the enraged bull was upon him; but he avoided his horns several times by dodging behind the tree. Whilst Mr. Strong and the bull were thus desperately engaged, the dogs rallied again in defence of their master. One of the best dogs attempted to seize the bull by the nose, but unfortunately missed his hold, and the bull instantly catching him betwixt the point of his horns and the ground, ran him through, and tossed him up as if he had been hurled from an engine. Mr. Strong found time during the second combat betwixt the dogs and the bull to make his escape to a large tree that lay near him, blown down by the wind; and walked out on one of the horizontal limbs, a few feet from the ground—he was obliged to stand on the limb. It was so low that, if he had straddled it, the bull could have reached him. The bull run to and fro under him, whilst he was fearfully balanced on a shaking limb, knowing that instant death awaited his fall. Presence of mind is the last thing a good hunter loses; and Mr. Strong, in his perilous situation, managed to reload his gun, and firing down on the bull, as he passed under, broke his back near his hips. This

shot brought his hinder parts to the ground; but he propped up his fore parts by planting his fore feet before him, and held up his head fiercely at his destroyer, roaring with rage and pain. He fired another ball in his forehead, and the dying bull dropped his awful front to the earth.

"And now the hurly burly's done,
And the battle lost and won."

Mr. Strong next called his cowardly companions, who were still afraid to come near the bull; but having satisfied themselves that he had sunk to the deep sleep that knows no waking, they began to handle and admire his curly head and pointed horns, which a few minutes before they feared to look upon.

S. H.

SIMULTANEOUS EFFORTS.—The power of *union* and the power of *sympathy*, when combined by simultaneous efforts, are irresistible. And there is no subject to which they may be more appropriately or more successfully applied, than to the *diffusion* of *knowledge*. And there is no branch of knowledge which more strongly invites this power and these efforts, or which is more worthy of them, than Natural History. Let the friends of Education throughout the country unite their efforts in collecting cabinets of Natural History, and in exchanging specimens, the present season, and in less than a twelvemonth every town and village in the Union might be furnished with a place of intellectual and social resort, highly interesting and useful to all classes and ages.—[Family Lyceum.]

RICE PAPER.—The fine and beautiful tissue brought from China and Calcutta, and employed under the name of *rice paper*, is far from being an artificial substance fabricated from rice or any other farinaceous material. By holding a specimen of it between the eye and a clear light, it will be seen to consist of a vegetable tissue, composed of cellules so exactly similar, and so perfect, that no preparation of a paper could be possibly made to acquire.

It is now known to be made of the internal part of the *Œschynomene paludosa*, Roxburg,—a leguminous plant which grows abundantly on the marshy plains of Bengal, and on the borders of vast lakes between Calcutta and Hurdwart. It is a hardy plant, requiring much moisture for its perfect growth and duration. The stem rarely exceeds two inches in diameter, spreading extensively, but not rising to any great height.

The stems of this plant are brought in great quantities in Chinese junks, from the island of Formosa and other places, to China and Calcutta. These stems are cut into the lengths intended for the leaves or sheets, and then, by means of a very sharp and well tempered knife, about ten inches long and three inches wide, the pith is divided into thin circular plates, which, being pressed, furnish the leaves sold under the name of rice paper. The operation of cutting the leaves is very similar to that of cutting corks. The leaves are generally seven or eight inches long and five wide; some are even a foot long. Those which are not fit for drawing are colored for other purposes. Rice paper absorbs water, and swells so as to present an elevation, which continues after it becomes dry, and gives to the drawing a velvety appearance and a relief, which no other kind of paper produces.

Rice paper may, with care, be written upon, as the ink does not spread. The writing is glossy, showing some metallic surfaces.

Examined chemically, it seems to be analogous to the substance which Dr. John calls medulline. Treated with nitric acid, it forms oxalic acid.

The white and pure specimens are much used for drawings; the inferior are variously colored, and now extensively used in forming artificial flowers. In India, a pasteboard is made by cementing many leaves together, and of this hats are fabricated, which, covered with silk or other stuff, are firm and extremely light.

Rice paper was introduced into Europe about thirty years ago. The flowers which were first made of it sold at an exorbitant price. A single bouquet cost the Princess Charlotte of Wales £70 sterling.

From the quality of this paper, it may be most successfully employed in painting butterflies, flowers, birds, plants, and animals. For this purpose, the object is first sketched on common paper, which is then to be pasted on a card. The sketch must be of a deep black. On this the rice paper is fastened, and the painting effected with a pencil and fine colors. When executed in this way, by the most skilful hands, the pictures of butterflies, insects, &c. have been often mistaken for the animal itself pasted on paper. Rice paper has also been employed in lithography, with the most brilliant effect.

It is desirable for the purposes of art, that some aquatic plant should be found in our own climate whose pith is analogous to that of the Œschynomene. Is it not possible, also, to fabricate a paper, the tissue of which may absorb water, and furnish the relief which gives to rice paper its greatest value? —[Jour. des Connais. Usuelles, Fev. 1832.]

CLOTHING, NATURAL AND ARTIFICIAL.—The covering of wool and feathers, which nature has provided for the inferior classes of animals, has a property of conducting heat very imperfectly; and hence it has the effect of keeping the body cool in hot weather, and warm in cold weather. The heat which is produced by powers provided in the animal economy within the body, has a tendency, when in a cold atmosphere, to escape faster than it is generated; the covering being a non-conductor, intercepts it, and keeps it confined. Man is endowed with faculties which enable him to fabricate for himself covering similar to that with which nature has provided other animals. Clothes are generally composed of some light non-conducting substances, which protect the body from the inclement heat or cold of the external air. In summer, clothing keeps the body cool, and in winter warm. Woollen substances are worse conductors than those composed of cotton or linen. A flannel shirt more effectually intercepts heat than a linen or a cotton one; and whether in warm or in cold climates, attains the end of clothing more effectually.

If several pieces of cloth, of the same size and quality, but of different colors, black, blue, green, yellow, and white, be thrown on the surface of snow in clear daylight, but especially in sunshine, it will be found that the black cloth will quickly melt the snow beneath it, and sink downwards. The blue will do the same, but less rapidly; the green still less so; the yellow slightly; and the white not at all. We see, therefore, that the warmth or coolness of clothing depends as well on its color as its quality. A white dress, or one of a light color, will always be cooler than one of the same quality of a dark color, and especially so in clear weather, when there is much sunshine. A white and light color reflects heat copiously, and absorbs little, while a black and dark color absorbs copiously and reflects little. From this we see that experience has supplied the place of science in directing the choice of clothing. The use of light colors always prevail in summer, and that of dark in winter.

BLASTING ROCKS UNDER WATER.—Three men are employed in a diving-bell; one holds the jumper, or boring iron, which he keeps constantly turning; the other two strike alternately quick smart strokes with hammers. When the hole is bored of the requisite depth, a tin cartridge, filled with gunpowder, about two inches in diameter, and a foot in length, is inserted, and sand placed above it. To the top of the cartridge a tin pipe is soldered, having a brass screw at the upper end. The diving bell is then raised up slowly, and additional tin with brass screws are attached, until the pipes are about two feet above the surface of the water. The man who is to fire the charge is placed in a boat close to the top of the tube, to the top of which a piece of cord is attached, which he holds in his left hand. Having in the boat a brasier, with small pieces of iron red hot, he drops one of them down the tube; this immediately ignites the powder, and blows up the rock. A small part of the tube next the cartridge is destroyed; but the greater part, which is held by the cord, is reserved for future service. The workmen in the boat experience no shock; the only effect is a violent ebullition of the water, arising from the explosion; but those who stand on the shore, and upon any part of the rock connected with those blowing up, feel a very strong concussion. The only difference between the mode of blasting rocks at Howth and at Plymouth is that, at the latter place, they connect the tin pipes by a cement of white lead. A certain depth of water is necessary for safety, which should not be less than from eight to ten feet.—[Repertory of Patent Inventions.]

STATISTICS OF THE TEMPERANCE SOCIETY.—Twenty-one State Temperance Societies are already formed.

There are more than 4,000 Societies in the United States.

More than 500,000 persons are pledged to total abstinence, and 1,500,000 practise it.

There are more than 600 vessels sailing out of our ports without ardent spirits.

More than 1,400 distilleries have been stopped.

Two hundred public houses have discontinued selling intoxicating liquor.

More than 4,000 merchants have given up the traffic in ardent spirits.

More than 45,000 drunkards have reformed.

There were in the United States 467,000 regular drunkards in the year 1828.

There were 15,000 persons excommunicated, annually, from the 12,000 churches in the United States, for intemperance.

There were in our cities and large towns about one grog-shop to every twelve families.

There are about 609 murders committed yearly in the United States that proceed directly from intemperance.

MERCHANTS' EXCHANGE, NEW-YORK.

This building is situated on the south-west side of Wall street, on the corner of Hanover street, extending through to Exchange Place, having a front of about 125 feet in Wall street, and forming nearly a square. The basement story is occupied principally by the Post Office. On the principal story is the Exchange Room, which is 100 feet in length and 60 feet in width, with an arched ceiling suspended from the rafters of the building. It is constantly kept well lighted, warmed, and ventilated, and is attended by a person competent to give such information as strangers may require. The other parts of the building comprise the Stock Exchange, and various other offices devoted to mercantile pursuits, which are always in request.

In the dome is the Exchange Telegraph, connected with several stations in the harbor, the most remote of which is on the Highlands of Neversink, in the State of New-Jersey, the distance of which, in *a direct line*, is about 27 miles. This station is situated upwards of 400 feet above the level of the sea, and in clear weather commands a prospect of the offing, upwards of 30 miles in extent. The means of communication by the Telegraph are so easy, that any information can be conveyed through the whole line in less than five minutes.

In addition to the station on Staten Island, the proprietors have placed signal poles, which always show, during the day, the number of inward bound vessels in sight, and they form a guide for pilots, by whom they can be seen from the principal wharves in the city. These stations have been erected at great expense by the Company.

In the Exchange Room is a book, open to the public, in which the Telegraphic communications are entered immediately they are received.—[Amer. Mec. Mag.]

Twinkling of the Fixed Stars.—Having never yet seen any solution of the twinkling of the fixed stars, with which I could rest satisfied,* I shall offer the following, which may not perhaps be found an inadequate cause of that appearance; at least it has undoubtedly some share in producing it, especially in the smaller stars. It is not, I think, unreasonable to suppose that a single particle of light is sufficient to make a sensible impression upon the organs of sight. Upon this supposition, a very few particles of light, arriving at the eye in a second of time, will be sufficient to make an object visible, perhaps not more than three or four; for though the impression may be considered as momentary, yet the perception, occasioned by it, is of a much longer duration—this sufficiently appears from the well known experiment of a lighted body whirled round in a circle, which needs not make many revolutions in a second to appear as one continued ring of fire. Hence, then, it is not improbable that the number of the particles of light, which enter the eye in a second of time, even from Sirius himself, may not exceed three or four thousand; and from stars of the second magnitude, they may therefore not much exceed an hundred. Now, the apparent increase and diminution of the light which we observe in the twinkling of the stars, seems to be repeated at not very unequal intervals, perhaps about four or five times in a second: why may we not then suppose that the inequalities, which will naturally arise from the chance of the rays coming sometimes a little denser and sometimes a little rarer, in so small a number of them, as must fall upon the eye in the fourth or fifth part of a second, may be sufficient to account for this appearance? An addition of two or three particles of light, or perhaps of a single one upon twenty, especially if there be an equal deficiency out of the next twenty, would, I suppose, be very sensible; this seems at least probable from the very great difference in the appearance of stars, whose light is much less different than, I imagine, people are in general aware of; the light of the middlemost stars in the tail of the Great Bear does not, I think, exceed the light of the very small star next to it, in a greater proportion than that of about sixteen or twenty to one; and Bouger tells us in his *Traite d'Optique*, that he finds a difference in the light of objects of one part in sixty-six sufficiently distinguishable.

It will perhaps be objected, that the rays coming from Sirius are too numerous to admit of a sufficient inequality arising from the common effect of chance, so frequently as would be necessary to produce th iseffect, whatever might happen in respect to the smaller stars; but till we know what inequality is necessary to produce this effect, we can only guess at it either one way or the other; there is, however, another circumstance, that seems to concur in the twinkling of the stars, besides their brightness, and this is a change of color. Now the red and blue rays being very much fewer, I apprehend, than those of the intermediate color, and therefore much more liable to inequality from the common effect of chance, may help very much to account for this phenomenon, a small excess or defect in either of these making a very sensible difference in the color.

It will now naturally be asked, why the frequency of the changes of brightness should not be often much greater, as well as sometimes less, than that above-mentioned, and why the interval of the fourth or fifth, or some such part, should be pitched upon, rather than the fortieth or fiftieth part of a second, or than a whole second, &c.; for, according to the length or shortness of the time assumed, the changes that will naturally occur from the effect of chance will be smaller or greater in proportion to each other. The answer to this question will, I think, tend to render the above solution more probable, as well as to throw a good deal of light upon the whole subject. The lengths of the times then between the changes of brightness, if I am not mistaken, depend upon the duration of the perception before-mentioned, occasioned by the impression of the light upon the eye, than which they seem to be neither much longer nor shorter. Whatever inequalities fall within a much shorter time than the continuance of this perception, will necessarily be blended together, and have no effect, but as they compose a part of the whole mass; but those inequalities, which fall in such a manner as that they may be assigned to intervals nearly equal to, or something greater than, the continuance of this perception, will be so divided by the imagination, which will naturally follow, and pick them out as they arise.—[Phil. Trans. 1767.]

* Some astronomers have lately adopted, as a solution of this appearance, the extreme minuteness of the apparent diameters of the fixed stars, which, they suppose, must in consequence of this be intercepted by every little mote that floats in the air; but, that an object should be able to intercept a star from us, it must be large enough to exceed the apparent diameter of the pupil of the eye; so that, if the star were a mathematical point, it must still be equal in size to the pupil of the eye.

Night and Day Telegraphs in France.—A project has been laid before the Government by a Company (Messrs. Ferrier and Co.,) for improving telegraphic communications to such an extent, that they will be able to transmit intelligence an immense distance at any moment of the night or day. This plan is especially calculated for the conveyance of commercial intelligence. A million of francs will be sufficient, according to the Company's calculation, to establish a full complement of telegraphs between Paris and the following places:—Havre, Calais, Lille, Maubeuge, Marseilles, Toulouse, Bordeaux, and Nantes. The yearly expense they calculate at 900,000 francs, but the produce per annum would be 2,803,203 francs.—[London Times.]

Method is the very hinge of business, and there is no method without punctuality. Punctuality promotes the peace and good temper of a family. The calmness of mind which it produces is another advantage of punctuality. A man without punctuality is always in a hurry: he has no time to speak to you, because he is going elsewhere; and when he gets there he is too late for his business, or he must hurry away to another before he can finish it. Punctuality gives weight to character: such a man has made an appointment; I know he will keep it: and this generates punctuality in those with whom he lives—for, like other virtues, it propagates itself. Servants and children must be punctual where the master is so. Appointments become debts. I have made an appointment with you; I owe you punctuality, and I have no right to throw away your time, even though I might my own.

ANGORA GOATS—ANGORA CATS.—The following extracts of letters from Commodore Porter to J. S. Skinner, Esq. late editor of the American Farmer, will be read with interest. We do hope that some of our spirited monied men will avail of the opportunity now presented of importing the Angora goat. There are some gentlemen of our acquaintance who could do this for their country without difficulty; and there are very few acts they could perform that would confer upon it a greater benefit, or of the credit of which they could have more reason to be proud.—[Am. Farmer.]

"PERA, Jan. 19, 1833.

"I believe I have mentioned to you something about the Angora goats, and the beautiful silkiness of their hair, finer even than silk, and softer. It is of that which they make the Cashmere shawls, which cannot be equalled by any manufacture of silk. The animal itself is a beautiful and majestic creature, and I think the introduction of it into the United States would be highly advantageous to the interests of the country. In the fine fabrics it (the hair) would supersede the use of silk. And I would, if I were rich enough, spare no expense in introducing the breed into our country—but alas! a *charge des affaires*, with an expensive establishment at one of the most expensive courts in the world, finds it not only hard, but actually impossible, to make both ends meet, with a strict economy amounting to meanness. I am willing to do all I can to promote the interests and improvements of our country, by the introduction of many things, but I have not the means. The converse of the proposition of the apothecary, in Romeo and Juliet, will suit my case.

"However, as I cannot send you the animal for the want of means, I shall send you a skin, and that alone has cost me five dollars. Then judge what it would cost to send a person expressly to Angora to purchase and bring the animals to me, to bribe the Musselim to let them come *unaltered*, for their departure in a *perfect* state is prohibited; their passage and provisions to the United States, and the pay of the person on board to take care of them. All this, you may readily conceive, would be no trifling affair, yet *coute qui coute*, were I able, I would send three or four pair home, and have them placed in different sections of the country to propagate.

"For fear of the miscarriage of the skin, I send you a specimen of the hair.* Here is a beautiful substance, finer and infinitely stronger than the finest and strongest silk, growing on the back of a hardy animal, the cost of the keeping of which is nothing compared to the cost of keeping a sheep—and the value of the produce per pound is as superior to silk as silk is to the wool of the merino. The value of a Cashmere shawl here is from three to four and some five hundred dollars. The best of the French silk imitations may be purchased for thirty dollars.

"The cost of the introduction of this animal into the United States would not be much for two or three public spirited men of fortune to undertake,—it would be nothing compared to the expense they were at in introducing the rotten, mangy, short-lived merino.

"The goat is a hardy animal, long-lived, and subject to none of the diseases of the sheep. You may, by the skin I send you, form some judgment of what the fleece would be worth, even at the price of silk—but I assure you that an Angora goat of the *neuter gender*, now in my back yard, has a fleece of double the length of the fleece I send you.

"The French, you know, were at great expense in sending out Mr. Jobert to obtain the breed. What they have done with it, or whether it was genuine, I know not, but the breed can be had genuine; funds only are necessary—for my services, you know, are always ready, whenever I can do any thing which may be likely to prove beneficial to the country."

* We have seen this specimen, and it really deserves all that the Commodore says of it.—[Ed. Am. Farmer.]

ELECTRICAL PROPERTY OF THE ANGORA CAT.

PERA, Jan. 22, 1833.

Dear Skinner,—I last evening made what to me was a great discovery.

I had often seen the electric sparks fly off from the back of a cat, while stroking it with the hand in the dark, but never before felt the electric shock.

I was playing with my Angora cat, it was lying on the table on its right side; I laid my left hand upon its neck, my thumb on the hind part of the shoulder joint, and stroked down the hair with the right hand. I felt several very smart shocks of electricity, which evidently gave great pain to the cat, as they did to me.

I mention this to you, that other experiments may be made, and if electricity is beneficial in some diseases, (as it is said to be,) I feel confident that it may be obtained from the cat sufficiently strong for all medical purposes.

At the time this was discovered the weather was dry and frosty, and the room warm.

I caused some of the servants to place their hands as I had placed mine,, while I stroked down the hair of the cat, and they complained that the shocks were very painful to them. Whether this is peculiar to the Angora cat, and to the *neuter gender*, can be easily ascertained. The most frequent shocks were felt in the little finger, which rested on the root of the left ear—but the severest shocks were felt in the thumb, which rested, as before said, on the hind part of the shoulder joint.

I placed my hands in other positions and could produce no shock whatever.

If this is a new discovery it is worth following up. It may be as old as the hills for what I know, but I never heard of it.

Yours truly, DAVID PORTER.

POULTRY HATCHED BY A BUZZARD.—At Withington, near Litchfield, a female buzzard (*Buteo vulgaris*, Fleming,) domesticated and kept in the garden, was every year set with some eggs of the common poultry, which she sat upon with great assiduity, and hatched at the usual time. When the chickens were liberated from the shell, their furious step-mother would scarcely allow any person to approach the wooden box in which the chickens were hatched and to which they retired whenever they chose: and no dog or cat could approach them without being furiously assailed by the indignant inhabitant. This bird had another singular faculty: it used to roll up a round ball of dirt, on which it usually stood instead of standing with its feet flat upon the ground; and there is a portrait painted of it, standing in its favorite position on the ball of the dirt. Its fury surpassed that of a common hen whilst the chickens were young, but gradually abated as they grew older; and I have seen some full grown fowls of its own hatching with it in the garden, feeding and living together.

There is in the garden of the Chequer Inn, at Uxbridge, a buzzard that has been known in the neighborhood for twenty years, and has occupied her present quarters for half that time. About eight years ago she first showed an inclination to set by collecting and bending all the loose sticks she could obtain possession of. Her owner, noticing her actions, supplied her with materials; she completed her nest and sat on two hens' eggs, which she hatched, and afterwards reared the young. Since then she has hatched and brought up a brood of chickens every year. She indicates a desire to set by scratching holes in the ground, and breaking and tearing every thing within her reach. This last summer, in order to save her the fatigue of setting, some young chickens, just hatched, were put down to her; but in this case she did not forget her natural appetite, and destroyed the whole. Her family last year, (June 1831,) consisted of nine; the original number was ten, but one was lost. There was another brood of chickens in the same garden, but they never ventured within her reach. When flesh was given her, she was very assiduous in tearing and offering it to her nurslings, and appeared very uneasy if, after taking small portions from her, they turned away to pick up grain.

LEXINGTON, April 11th.

BLOOD HORSES.—The show of horses on Monday last, in the suburbs of the city, was a most interesting exhibition to the admirers of that noble and valuable animal. The number of horses was not so large as on some former occasions, there being only a select few, about forty, on the show ground, the favorites of all the adjoining counties; but the number of persons present exceeded all precedent. It may be supposed invidious to particularize, when each horse was admired by a host of friends and more competent judges than we can pretend to be. The most striking and attractive animals, however, appeared to us to be Collier, Shakspeare, Behemoth, Dungannon, Wide-Awake, Amarath, James Cropper, Woodpecker, Arab, Buzzard, Buck-Elk, a Bedford horse, owned by Mr. Hunter, of Woodford, Brown Highlander, and the two Arabians, Stamboul, and Kochlani, brought to this State by Mr. Clay; Trumpator and Kosciusko were not taken to the field, but received visits at their respective stables. Three of Stamboul's young colts were in an adjoining lot. There appeared to be but one opinion with respect to them, namely, that they were exceedingly fine colts in size, just proportions, and general appearance; the sire, of course, attracted the greater attention, and was surrounded by a crowd of admirers. Two two-year old fillies, by Trumpator, were pronounced first rate, and a little better. The stock of none of the other horses was exhibited, as we could learn. It may be said with truth, we think, that there never has been a finer exhibition of finer horses in any country, and which, generally, were so equally matched for their blood, noble carriage, and performances on the turf. An impartial spectator, in ranging over the field, could with difficulty determine where to fix his preference. It is an old saying, that one story is good until another is told; so it was in surveying these noble animals—one was the finest horse until the next was seen, and so on to the next; and the last, to the uninitiated

observer, had little or no superiority over the first.

EMPLOYMENT OF MATERIALS OF LITTLE VALUE.—"The skins used by the gold-beater are produced from the offal of animals. The hoofs of horses and cattle, and other horny refuse, are employed in the production of the prussiate of potash, that beautiful yellow crystallized salt which is exhibited in the shops of some of our chemists. The worn-out saucepans and the tin ware of our kitchens, when beyond the reach of the tinker's art, are not utterly worthless. We sometimes meet carts loaded with old tin kettles and worn-out iron coal scuttles, traversing our streets. These have not yet completed their useful course; the less corroded parts are cut into strips, punched with small holes, and varnished with a coarse black varnish for the use of the trunk maker, who protects the edges and angles of his boxes with them; the remainders are conveyed to the manufacturing chemist in the outskirts of the town, who employ them in conjunction with pyroligneous acid in making black dye for the use of calico printers."—[Babbage on Manufactures, page 10.]

ARROW ROOT.—"We have been presented," says the Portsmouth (N. H.) Journal, "with a bundle of imitation of Arrow Root, handsomely done up in blue paper, manufactured from potatoes, at the Starch Factory in this town; it is a superior article. Dr. Prout recommends the Potato Fecula, as better than that from the arrow root."

SAGO (*Sagus Farinifera, and other species.*)—The substance known in commerce under the name of sago is a farinaceous pithy matter, extracted from the trunk of a tree.

This tree is a native of the south-east of Asia, and of the islands of the Indian Ocean, where it grows spontaneously, and is perfected without any culture. This circumstance occurring with regard to a substance highly nutritive, in a climate which disposes the human frame to inaction, occasions the adoption of sago in many places as the general food of the population, to the neglect of other plants, the cultivation of which would call for some amount of exertion.

The sago, or, as it is called in the Molucca Islands, the libley tree, is of peculiar growth. The trunk, which is formed of the bases of the leaves, grows at first very slowly, and is covered with thorns; so soon, however, as the stem is once formed, the growth of the tree proceeds with very great rapidity, so that it speedily attains its full height of thirty feet, with a girth of five or six feet, losing in this stage its thorny accompaniments. Like the cocoa-nut tree, the sago has no distinct bark that can be peeled off, but the trunk consists of a long, hard, ligneous tube, about two inches thick, the internal area of which is filled with a kind of farinaceous pith, intermixed with numerous longitudinal fibres. The maturity of the tree is known by the transpiration of a kind of whitish dust through the pores of the leaves, and when this appears the trunk is felled near to the ground.

The best account of this tree, and of the mode of preparing its pith for use as human food, is to be seen in Forest's account of the Molucca Islands; it is to the following effect.

"The tree being felled, is cut into lengths of five or six feet. A part of the hard wood is then sliced off, and the workman coming to the pith, cuts across the longitudinal fibres and the pith together, leaving a part at each end uncut, so that when it is excavated, there remains a trough, into which the pulp is again put, mixed with water, and beaten with a piece of wood. Then the fibres, separated from the pulp, float at top, and the flour subsides. After being cleared in this manner by several waters, the pulp is put into cylindrical baskets made of the leaves of the tree; and if it is to be kept some time, those baskets are generally sunk in fresh water to keep it moist. One tree will produce from two to four hundred weight of flour.

"We seldom or ever see sago in Europe but in a granulated state. To bring it into this state from the flour, it must be first moistened and passed through a sieve into an iron pot (very shallow) held over a fire, which enables it to assume a globular form. Thus all our grained sago is half baked, and will keep long. The pulp or powder of which this is made will also keep long, if preserved from the air, but if exposed, it presently turns sour."

We learn also from the same authority, that loaves of bread are sometimes made in the Molucca Islands of the pith of the sago, and that these loaves are baked in small ovens, "the floors of which are divided by means of partitions into cells about the size of an octavo volume."

The leaf of the sago is used in the same quarter for covering houses, and in that climate will not need to be renewed oftener than once in seven years.

When the sago tree is cut down, its vegetative power still remains in the root, which again puts forth its leaves and forms the trunk, and this proceeds again through its different stages, until it is again subjected to the axe, and made to yield its alimentary contents for the service of man.

Sago is also produced from many varieties of palms, but the tree here described is that which furnishes the best. The produce of the *cycas circinalis*, so often erroneously mentioned as yielding the sago of commerce, is very inferior.

If the native of the Molucca Islands has his sago-bread without the labor of cultivating the plant which produces it, the Indians of the Cordilleras of South America has his supply of milk from a tree growing at a vast height, amidst arid mountains, where no cattle can pasture. *The cow-tree* has been described by Humboldt with his characteristic spirit and accuracy; and it was much earlier noticed by Laet, a Dutch traveller, as growing in the province of Cumana. "On the side of a thirsty rock," says Humboldt, "grows a tree whose leaves are dry and husky. Its large roots penetrate with difficulty through the stony soil. During many months of the year not a shower waters its foliage; the branches appear withered and dead; but when its trunk is pierced, a sweet and nourishing milk flows from the wound. It is at the rising of the sun that this vegetable aliment is most plentiful. The natives and the black slaves then gather together from all parts with large wooden vessels to catch the milk, which as it flows becomes yellow, and thickens on the surface. Some make their abundant meal at the foot of the tree which supplies it; others carry their full vessels home to their children."

In tropical countries the force of vegetation is so great, and the wants of society so few, that magnificent trees are destroyed for the sake of a small portion of food, such as a few square feet of an English garden would produce.

SOUR SOIL—AGRICULTURAL SCIENCE.—Mr. Editor: I will mention an incident, by way of exhibiting the importance, to the farmer, of an acquaintance with the general principles of philosophy and chemistry. I am a farmer of the old school, and have more land than learning, and more faith in economy than skill in invention. I have a large piece of meadow, level and handsome, which might be supposed capable of producing three tons to the acre, and yet is so cold and *sour*, as we call it, that I hardly get one ton. I have manured it in the most lavish manner; but to very little purpose. It was too wet to produce any other crop, even potatoes; consequently there would be little use in breaking it up, and seeding down anew. So I concluded to look upon my meadow as I would upon a cow with two teats, and be contented with my ton to the acre. My eldest boy is what they call a scholar, so I sent him to college. The second year he came home in the spring, and heard me speak of my *sour* meadow. He examined it, and asked why I did not spread upon it a quantity of lime or plaster, "and thus, by a chemical process, expel the acidity?" "Go to college with your jargon!" said I: but the boy talked, till I, for the first time in my life, resolved to try an experiment. And I tried it in this way: As soon as the grass began to start, I set apart about an acre of the poorest for the "chemical process." Spreading thinly upon it a quantity of plaster of paris, I waited to mark the result. The benefits derived from the *process* were soon too obvious not to be discovered. The grass looked fresh and thrifty, and could soon be distinguished from the rest of the field. When cut, it was not only of a better quality, but nearly a third more in amount, than the produce of any other acre in the whole field. I tried the same experiment on the remainder, with the addition of a liberal and judicious application of manure, and the result was the same as with the acre. The boy solved the mystery, by saying that an acid and an alkali, when mingled together, produced a fermentation in which both were neutralized, and which was favorable to the decomposition of such animal and vegetable substances as were not readily reduced by the common course of nature. The case was a simple one—but it struck me as rather singular that my boy could *study* agriculture in *college*, to better advantage than I had *on the farm*. I thereupon concluded that farming could profitably be made a *study*, and that chemistry and philosophy are two of its first and most essential branches.—[Farmer's Journal.]

VALUABLE MATERIAL FOR WALKS AND ALLEYS.—A soap-maker not knowing what to do with the black sulphurous residuum of his ley tubs, spread it in a wet state along the alleys of his garden. It soon became stiff and almost impervious to rain; the alleys were always dry; no grass or weeds appeared on it, but the plants within a few inches of it all died. He was delighted with this discovery of the means of enjoying clean and dry walks without any trouble, having only to put a covering of clean sand over the refuse. Having occasion some time after to repave his yard, he used the

soft refuse instead of mortar. It soon hardened and cemented the stones so well, that the heaviest carriages occasioned no disadjustment.—[Jour. des Connais. Usuelles.]

CLAY FOR SCULPTORS.—Sculptors, who prepare their models in clay, have frequently occasion to leave their work for a long time unfinished, and in such cases often experience much difficulty from the drying and shrinking of the material. It is well to know that by the addition of ten to fifteen per cent. of muriate of lime, well worked or kneaded into the clay, it will be preserved for almost any length of time in a moist state, and fit for a renewal of the work without any preparation.—[Jour. des Connais. Nov. 1832.]

Improved Carriage Wheel Guard. [Communicated by the Inventor for the Mechanics' Magazine.]

MIDDLEBURG, Md. May 10, 1833.

SIR,—Having been informed that your paper is exclusively devoted to the publication of all new and important information connected with discoveries in mechanics, I have taken the liberty of inclosing you a description of my "Carriage Wheel Guard," an apparatus for which I have received "Letters Patent" from the Government of the United States. With this apparatus attached to wheeled carriages of all kinds, there is perfect safety and security from the occurrence of accident in case any derangement should take place in the running part. The great advantages to be derived by the travelling portion of the community, from the general introduction of this "Carriage Wheel Guard," must be obvious to the most superficial observer. Respectfully yours,

W. ZALLICKOFFER, M. D.

DESCRIPTION.—This apparatus consists of a cylindrical flanged rim of iron, guards, a circular collar, and a semi-circular cap. The axle-tree and wheels are made in the usual manner. The cylindrical flanged rim of iron, is either cast whole with the hub, or in sections, and screwed to its periphery in a groove, having two flanges, one on each side, raised sufficiently high to form a groove to receive the collar. The guards are made of iron, nearly in the form of the letter Z, and secured to the axle-tree by a joint and screw bolt. To each axle-tree there are four guards, two on each side. The circular collar, made of iron, is secured to the ends of the guards, and is put around the cylindrical rim in the groove formed by the flanges. A semicircular cap, secured to the guards by hooks and staple, is put over the hub to prevent dirt falling in the groove around the rim. There are three other modes of applying the same principle described in the specification, which it is, perhaps, unnecessary here to notice, as they are not as likely to answer the purpose quite as well as the present described apparatus.

OPERATION.—The operation is thus:—When the axle-tree is whole, and the linch-pin, or nut, secure, then the wheel turns without touching any part of the guards or collar; but should the spindle of the axle-tree break, or the linch-pin or nut become disengaged, then the wheel would be prevented from falling by the cylindrical collar on the ends of the guards put around the hub, between the flanges of the rim, as before described, and the wheel would continue to revolve, without any impediment except that created by the friction of the collar and rim. Should the axle-tree break at the shoulder of the spindle, or in any other part, the wheel will still be preserved in its ordinary position, but will become partially locked from the friction of the collar.—For a further illustration of my invention, I refer to the model and drawings of the same, deposited in the Patent Office, and to those (if more convenient) in my possession also.

ARCHITECTURE.—Without entering deeply into the subject of Architecture, we propose to devote a portion of our succeeding pages to the explanation of the general and fundamental principles upon which this highly interesting and beautiful science depends.

The science of Architecture has at all times, and in all civilized countries, been considered not only a pleasing but a highly useful branch of knowledge.

The great utility of this science, and the elegant accomplishments connected with its study, have almost rendered a knowledge of its rules and principles necessary to complete a liberal education. But it is not our intention to bestow encomiums on the science, nor to give any thing like a detailed history of it, but to present our readers with a plain and condensed account of what may be termed its elementary principles.

Architecture is usually divided, with respect to its objects, into three branches, *civil*, military, and naval.

Civil Architecture, called also absolutely, and by way of eminence, *Architecture*, is the art of contriving and executing commodious buildings for the uses of civil life; as houses, temples, theatres, halls, bridges, colleges, porticoes, &c.

Architecture is scarcely inferior to any of the arts in point of antiquity. Nature and necessity taught the first inhabitants of the earth to build themselves huts, tents, and cottages; from which, in course of time, they gradually advanced to more regular and stately habitations, with variety of ornaments, proportions, &c. To what a pitch of magnificence the Tyrians and Egyptians carried *Architecture*, before it came to the Greeks, may be learned from Isaiah xxiii. 8. and from Vitruvius's account of the Egyptian Oeci; their pyramids, obelisks, &c.

Yet, in the common account, *Architecture* should be almost wholly Grecian original: three of the regular orders or manners of building are denominated from them, viz. *Corinthian*, *Ionic*, and *Doric:* and there is scarcely a single member, or moulding, but comes to us with a Greek name.

Be this as it may, it is certain the Romans, from whom we derive it, borrowed what they had entirely from the Greeks; nor do they seem, till then, to have had any other notion of the grandeur and beauty of buildings, beside what arises from their magnitude, strength, &c. Thus far they were unacquainted with any other beside the *Tuscan*.

Under Augustus, *Architecture* arrived at its glory: Tiberius neglected it, as well as the other polite arts. Nero, amongst a heap of horrible vices, still retained an uncommon passion for building; but luxury and dissoluteness had a greater share in it than true magnificence. Apollodorus excelled in *Architecture*, under the emperor Trajan, by which he merited the favor of that prince; and it was he who raised the famous Trajan column, existing to this day.

After this, Architecture began to dwindle again; and though the care and magnificence of Alexander Severus supported it for some time, yet it fell with the western empire, and sunk into a corruption, from whence it was not recovered for the space of twelve centuries.

The ravages of the Visigoths, in the fifth century, destroyed all the most beautiful monuments of antiquity; and *Architecture* thenceforward became so coarse and artless, that their professed architects understood nothing at all of just designing, wherein its whole beauty consists: and hence a new manner of building took its rise, which is called the *Gothic*.

Charlemagne did his utmost to restore *Architecture;* and the French applied themselves to it with success, under the encouragement of H. Capet: his son Robert succeeded him in this design, till by degrees the modern *Architecture* was run into as great an excess of delicacy, as the Gothic had before done into massiveness. To these may be added, the Arabesk and Morisk or Moorish *Architecture*, which were much of a piece with the Gothic, only brought in from the south by the Moors and Saracens, as the former was from the north by the Goths and Vandals.

The architects of the 13th, 14th, and 15th century, who had some knowledge of sculpture, seemed to make perfection consist altogether in the delicacy and multitude of ornaments, which they bestowed on their buildings with a world of care and solicitude, though frequently without judgment or taste.

In the two last centuries, the architects of Italy and France were wholly bent upon retrieving the primitive simplicity and beauty of ancient *Architecture;* in which they did not fail of success: insomuch, that our churches, palaces, &c. are now wholly built after the antique. *Civil Architecture* may be distinguished, with regard to the several periods or states of it, into the antique, ancient, gothic, modern, &c. Another division of *Civil Architecture* arises from the different proportions which the different kinds of buildings rendered necessary, that we might have some suitable for every purpose, according to the bulk, strength, delicacy, richness, or simplicity required.

Hence arose five orders, all invented by the ancients at different times, and on different occasions, viz. Tuscan, Doric, Ionic, Corinthian, and Composite. The Gothic Architecture may also be mentioned here, for it is perfectly distinct both from the Grecian and Roman style, although derived from the latter.

NATURE AND FORMATION OF SNOW.—If snow is carefully examined with an eye-glass immediately after it reaches the ground, it will be found to consist, for the most part, of a regular figure of transparent ice, in the form of a star of six points. On each of these points, if minutely inspected, will be seen other collateral points, having the same angles of those of the main star. Next to this figure is a single shoot often seen, resembling a small slender cylinder. Besides these two regular figures, which are the principal ones, we discover various broken points and fragments, occasioned, probably, by the wind in their descent, and by being thawed and frozen again into irregular forms.

"From hence the true notion and external nature of snow seems to appear, viz.: that

not only some few parts of snow, but originally the whole body of it, or of a snowy cloud, is an infinite mass of icicles regularly figured; that is, a cloud of vapors being gathered into drops, the said drops forthwith descend: on which descent, meeting with a soft freezing wind, or at least passing through a colder region of air, each drop is immediately frozen into an icicle, shooting itself forth into several points on each hand outward its centre; but still continuing their descent, and meeting with some sprinkling and intermixed gales of warmer air, or in their continual motion and waftage to and fro, touching upon each other, some are a little thawed, blunted, frosted, clumpered; others broken, but the most clung in several particles together, which we call flakes of snow."

Clouds of snow are said to differ from clouds of rain in nothing but in the circumstance of their being in a state of crystallization. The whiteness of snow is owing to the small particles into which it is divided; for ice, it is well known, if pounded fine, will become equally white. Its lightness—for ten cubic inches of snow weigh but about one of water—is owing, notwithstanding it is composed of solid particles of ice, to the excess of its surface compared with the matter contained under it.

It is a prevailing opinion that snow fertilizes the earth more than rain, in consequence of the nitrous salts which it is supposed to acquire by freezing; but it has been ascertained by experiments, that the chemical difference between snow and rain water is very small—the former being less nitrous, and possessing somewhat less proportion of earth than the latter. Neither of them, however, it is believed, contain earth or salts of any kind of sufficient quantity to be sensibly efficacious in promoting vegetation. That snow promotes vegetation, by keeping the earth warm, there can be no doubt. The internal parts of the earth are heated uniformly, it is said, to the forty-eighth degree of Fahrenheit. The cold atmosphere of the winter months, were the surface of the earth exposed to its influence, would reduce the temperature to that degree of cold by which the roots of vegetables would be seriously injured, if not destroyed. "Providence has, therefore, in the coldest climates, provided a covering of snow for the roots of vegetables, by which they are protected from the influence of atmospheric cold. The snow keeps in the internal heat of the earth, which surrounds the roots of vegetables, and defends them from the cold of the atmosphere."—[Family Lyceum.]

The First Steamboat Voyage.—We feel gratified at being enabled to lay before our readers a letter from Robert Fulton, giving an account of his first trip by steam up the Hudson river. It is an extract from a Philadelphia paper of 1807, and can hardly fail of being read with interest. "When Fulton started upon this first voyage, he stood almost alone in his expectations of success. He, however, was sanguine; and could he now revisit the numerous rivers and bays of our country, he would find his expectations more than realized."

New-York, August 22, 1807.

To Joel Barlow, Esq. of Philadelphia:

My Dear Friend,—My steamboat voyage to Albany and back has turned out rather more favorable than I had calculated. The distance from New-York to Albany is 150 miles; I ran it up in 32 hours, and down in 30 hours. The latter is just five miles an hour. I had a light breeze against me the whole way going and coming, so that no use was made of my sails; and the voyage has been performed wholly by the power of the steam engine. I overtook many sloops and schooners beating to windward, and passed them as if they had been at anchor.

The power of propelling boats by steam is now fully proved. The morning I left New-York, there was not, perhaps, thirty persons in the city who believed that the boat would ever move one mile an hour, or be of the least utility. And while we were putting off from the wharf, which was crowded with spectators, I heard a number of sarcastic remarks: this is the way, you know, in which ignorant men compliment what they call philosophers and projectors.

Having employed much time and money and zeal in accomplishing this work, it gives me, as it will you, great pleasure to see it so fully answer my expectations. It will give a quick and cheap conveyance to merchandise on the Mississippi, Missouri, and other great rivers, which are now laying open their treasures to the enterprize of our countrymen. And although the prospect of personal emolument has been some inducement to me, yet I feel infinitely more pleasure in reflecting with you on the immense advantage that my country will derive from the invention.

However useful this may be, it is not half so important as the torpedo system of defence and attack; for out of this will grow the liberty of the seas; an object of infinite importance to the welfare of America, and every civilized country. But thousands of witnesses have now seen the steamboat in rapid movement, and they believe; they have not seen a ship of war destroyed by a torpedo, and they do not believe. We cannot expect people in general will have a knowledge of physics, or power of mind sufficient to combine ideas, and reason from causes to effects. But in case we have war, and the enemy's ships come into our waters, if the government will give me reasonable means of action, I will soon convince the world that we have surer and cheaper modes of defence than they are aware of.

Yours, &c.

Robert Fulton.

School Statistics.—About one third of the population of a country are between the ages of three and sixteen or eighteen; and of course are the proper subjects of school education.

In the United States, more than four millions of children ought to be under the influence of schools.

In Maine, the law requires that the inhabitants of every town pay annually, for the support of schools, a sum equal, at least, to 40 cents for every person living in it. That amounts to about $120,000. Their expenditures are more than $140,000.

In New-Hampshire, a separate tax of $90,000 is raised for schools, besides an annual appropriation from a tax on bank stock of $9,000 or $10,000.

In Vermont, more than $50,000 are raised for schools, from a three per cent. tax on the grand list, and as much more from district taxes, besides an income of nearly $1,000 from banks.

In Massachusetts are nearly three thousand schools, supported by public taxes and private subscriptions. In Boston, the schools contain more than 12,000 children, at an expense of about $200,000.

In Rhode Island are about 700 schools, supported by a legislative appropriation of $10,000 annually, by taxes and by private subscriptions.

The Connecticut school fund is nearly two millions, but fails of its desired object. Children in the state, 85,000; schools about 1,500.

In New-York are more than 9,000 schools, and over 500,000 children taught in them. School fund, $1,700,000; distributed annually, $100,000, but on the condition that each town raise by tax, or otherwise, as much as they receive from the fund. A wise provision.

New-Jersey has a fund of $245,000, and an annual income of $22,000.

In Pennsylvania, during the last year, more than 250,000 children, out of 400,000, were destitute of school instruction.

Delaware has a school fund of $70,000.

Maryland has a school fund of $75,000, and an income for schools from the banks, which is divided between the several counties.

Virginia has a fund of $1,233,000, the income divided among the counties according to the white population, and appropriated to paying the tuition of poor children, generally, attending private schools.

North Carolina has a fund of $70,000, designed for common schools.

South Carolina appropriates $40,000 annually to free schools.

Georgia has a fund of $500,000, and more than 700 common schools.

Alabama, and most all the western and southwestern states, are divided into townships, six miles square, and each township into sections one mile square, with one section, the sixteenth, appropriated to education.

Mississippi has a fund of $280,000, but it is not available till it amounts to $500,000.

The Legislature of Louisiana grants to each parish, or county, in that state, $2 62½ for each voter, the amount for any other parish not to exceed $1,350, nor to fall short of $800.—$40,000 are applied to educate the poor.

Tennessee has a school fund of about half a million, but complaints are made that it is not well applied.

Kentucky had a fund of $140,000, but a portion of it has been lost. A report to the Legislature, from the Rev. B. O. Peers, says, that not more than one-third of the children between the ages of four and fifteen attend school.

In Ohio, a system of free schools similar to that of New-England is established by law.

In Indiana, Illinois, and Missouri, no legislative measures for the support of schools have been adopted. All the schools are supported by private tuition.—[Family Lyceum.]

Manure proper for Hop Culture.—As to the manure most proper for the hop culture, good stable dung is much used, and is preferred to the manure made by beasts, as the latter encourages ants on strong ground. Woollen rags are the best for forcing a luxuriant vine, and if used with judgment, are excellent for clayey grounds; but they are apt to make the hop small, if too many are used. Malt, culm, and dove manure are excellent, and one complete dressing with lime is serviceable for strong ground.

To remove Vermin from Cattle.—A decoction of tobacco is very good, but it often makes the animal very sick for a short time. A better remedy is to mix plenty of strong Scotch snuff in train oil, and rub the back and neck of the creature with it, which will effectually drive away or kill all vermin.

Curwen observes that "the best preventives against fleas in hogs, lice in cattle, and ticks in sheep, are corn meal and good care." Hickory ashes thrown upon swine, not only assist in destroying fleas, but in removing cutaneous diseases, by causing the animals to rub themselves frequently.

HEMP MACHINE.—Arnold Zillner, Esq. of Giles county, has invented and obtained a patent for a machine for breaking and cleaning hemp, which, after repeated experiments, has been found admirably to answer the purpose intended. We have before us the certificate of *twelve* of the most respectable citizens of Bedford county, all hemp growers, who witnessed two experiments on a machine erected on the farm of Col. Samuel Mitchell, of that county. The first experiment resulted in the breaking and cleaning, in a very superior manner, of sixty-seven pounds of neat hemp, and twenty-two and a half pounds of tow that came out of it, in thirty-three minutes, with the assistance of six hands, exclusive of the drivers of the horses. On the second experiment, the result was twenty-eight and a half pounds of well broken and nicely cleaned hemp, and eight and a half pounds of tow that came out of it, in sixteen minutes, with the assistance of four hands, besides the drivers of the horses. In both instances, the machine was kept in operation by two mules and the same number of horses, with two small boys for drivers; the horses did not go faster than a brisk walk. The great advantage of the machine, in addition to the saving of labor, appears to be, that it saves all the lint in the shape of hemp or tow, separating the tow from the hemp, and leaving the latter very smooth, straight and clean. We understand that with four good horses, the machine will easily turn out fifteen hundred weight of clean hemp per day. Boys from twelve to fifteen years of age, or women, possess ample strength to attend it. The gentlemen who witnessed the experiments are all conversant with the culture of hemp, and they unite in recommending it as the most valuable machine within their knowledge for breaking and cleaning hemp. One of them, who has been for the last six or seven years a manufacturer of hemp into bagging and rope, considers the hemp broken and cleaned in this machine superior to that broken any other way, as it will make less tow in hackling, and the tow that is separated from the hemp in the process will answer very well for making baling rope.

We understand the patentee will be in this place shortly, when those who desire it will have an opportunity of obtaining further information.—[Nashville paper.]

CHEAP SUBSTITUTE FOR QUININE.—The extreme dearth of this article, the well known remedy for the cure of the ague, and perhaps the only infallible specific that medicine affords, has set many inquirers to work in order to discover some substitute of equal virtue, but within the means of the poor classes affected with intermittents. M. Magendie, who was entrusted by the Academy of Sciences with the task of performing a series of experiments for the purpose of ascertaining the virtues of the powder of the leaves of the holly (*ilex aquifolium*), has just returned a very favorable report. He tried it largely in numerous cases of ague committed to his charge in the Hotel Dieu; and in consequence of his report, the gold medal of the Academy, value 1500 fr. has been awarded to M. Roussea, the discoverer, "for having added to the materia medica an indigenous remedy, which will be found to be of the greatest value wherever agues are endemic, and the natives poor."—[Med. Gaz.]

SCIENCE AND ART.—The union of science and art in constituting a good farmer bears an analogy to the soul and body, in forming a perfect man. This union must be derived from the *book learning*, which, by too many, has been considered wholly superfluous, and its teachings distrustful. This anomalous race, if ever numerous, will soon, we trust, become extinct in this favored region, by the irradiation of that science it labors to obscure. What other science or art is supposed to be attainable in any considerable degree without reading or study? Why should the farmer alone rely on *intuition*, the *mere instinct* of the brute, for his improvement, and be directed in his employment by the same habit which confines his cattle to the furrow, and brings them about at the end of it, without a driver? Why should he consider himself nothing more than the *head tool* of his implements, and but the *main spring* of their movements, while the mechanic and artizan, by their science, seem to infuse intelligence into them? If knowledge be necessary in any occupation, it is pre-eminently so to the farmer. The mechanic has no call to investigate the elements which are the bases of the material of his handicraft. His stock is before him; and his tools, guided by the unerring hand and practised eye of professional skill, give form and finish to his work. Not so with the business of the farmer. He may as readily learn its mechanical parts; but he has problems to solve and mysteries to investigate. He must be familiar with the component parts of the substance on which he bestows his labor, their relative proportions, their affinities, their separate and compound agencies, and the influencies of other bodies in their adaptation to the results he is laboring to obtain. In short, he must know the *necessary* and *intimate* connection between cause and effect.

FINE STOCK.—The Frederick (Maryland) Herald speaks in exalted terms of a cow and calf of the Durham short-horned breed, raised by John Hare Powell, Esq. of Philadelphia, and now the property of the Hon. Henry Clay, to whose highly cultivated and beautiful seat at Ashland, Kentucky, they were to be conveyed. They are said to have been purchased for five hundred and fifty dollars—to be admirably formed—and to weigh nearly three thousand pounds. Sixteen pounds of butter in a week are made from the cream of the cow.

RADISHES.—Most of our garden grounds are too rich for the radish; and but few gardens are found that do not contain more or less of the *wire worm*. Hence we are induced to make experiments until we have raised them at least semi-transparent and as brittle as glass. Our method is, merely to mix two parts of sand with one part of common garden earth, and add a small quantity of stable manure; or earth of a clayey nature is preferable to the garden earth. Since adopting the above method, we have not failed in a single instance of raising an abundance of smooth, clear, and fine flavored radishes.—[Hingham Gazette.]

APPLE POMACE.—A subscriber wishes to know what he shall do with his apple pomace, of which he has a large pile. This substance is much liked by cattle and sheep, and hogs are likewise fond of it, and will manufacture it into good manure. For cattle, what they cannot eat while green may be dried, and given to them during winter. It consists of vegetable fibrez, deprived of its juices by pressure, and hence does not decay so rapidly as it would had the juices not been pressed out.

There may be however another trouble in regard to pomace, which renders it sometimes injurious to crops. A portion of malic or acetic acid may remain in it, which on coming in contact with the plant, or being taken into its vessels, renders it sickly. In order to neutralize this, as well as to hasten the decomposition, quick lime, thrown upon and intimately mixed with it, is an excellent thing.

Pomace therefore may be rendered valuable as a manure, either by feeding it out to cattle and letting them pass it through their stomachs; by putting it into the compost heap and decomposing it by the help of lime; or by giving it to the hogs with other materials, and letting it be mixed and tossed about by the *gentry* of the stye, or by drying it sufficiently, burning it and scattering the ashes upon the soil.—[Maine Farmer.]

ROASTING POTATOES.—A good and easy mode of roasting potatoes, apples or eggs, by steam:

Take your potatoes, or whatever you wish to roast, and after washing them clean, wrap them up in a paper two or three times over; when this is done put them in a can of water, and squeeze them until the paper is wet to the potato; squeeze them well, and after making a place in the embers, lay them in and cover them with hot ashes with no coals; after they have lain a proper time, take them out, and the paper will be found to be perfectly dry, and not burnt, and on opening the paper it will be found to be very hot and damp the nearer you go to the potato; the potato will be found to be soft and clean, and peal much easier and cleaner than when boiled. An Irish potato when boiled loses half its sweetness, but when prepared in this manner it does not lose its sweetness, but is better tasted every way. Apples roasted in this way are not like what they are when baked, black and burnt, but have a beautiful brown cast. Eggs prepared in this way are very toothsome, and will cook in a less time than when boiling, with good embers.—[South. Planter.]

LIBERAL AND JUDICIOUS DONATION.—We learn with pleasure that James Wadsworth, Esq. of Genesee, has placed in the New-York Life Insurance and Trust Company, in the name of trustees, who are gentlemen of high standing, in different parts of the state, the sum of six thousand dollars, to form a fund for the preparation and publication of popular courses of lectures, to be read in the common schools of this State, after having been approved of by the superintendant of common schools. The subjects, we understand, are Natural Philosophy, Chemistry, Political Economy, the Principles of Legislation, Horticulture, Agriculture, and Moral and Religious Instruction.—[N. Y. Eve. Post.]

SUGAR CANE IN THE UP COUNTRY.—We are gratified at seeing the attention that is beginning to be paid to the growing of Sugar Cane. In the low country, a great deal of sugar is made for the market, and in middle Georgia, and even in the up country, many farmers make their own sweetening. Where the climate does not allow it to mature sufficiently to make sugar, it makes a syrup equal to molasses, and the finest beer and vinegar in the world. Those who have teeth will also find it a very pleasant and wholesome subject to *jaw* about in the long winter evenings. We have heard it maintained by some that sugar cane is a more profitable crop for fattening hogs than Indian corn—the hogs being turned into the field as soon as the cane is ripe, and allowed to eat their fill without restraint. We believe seed cane may be had in abundance at fifty cents per hundred stalks.—[South. Planter.]

MANUAL LABOR IN CONNECTION WITH STUDY.—The Manual Labor Academy, in Maury county, Tennessee, is located thirty miles south of Nashville. The country is fertile and healthy, and occupied by industrious and moral inhabitants. It has considerable funds, furnished by the liberality of various individuals from several of the middle and southern states; and an excellent farm of 309 acres.

The institution is new, and the Manual Labor department has but recently been brought into full operation, although the number of students during some of the recent sessions has risen to 80. A trial of the laboring plan was made last summer on a small scale, and was attended with complete success: both in a pecuniary point of view, and in reference to health. But during the ensuing season (1833) the students will be required to labor two hours a day five days in each week, and one on Saturday; and provision will also be made for allowing those students to labor still more, whose limited means may require it. The farm is to be stocked, and furnished with proper implements. Should mechanical as well as agricultural labor be introduced, they have materials in abundance on the farm.

There appears to be two departments of the Seminary, a principal school and a preparato

ry one. In the preparatory school the teachers are expected to remain with the students under their care during the day, and to lodge in the room with them during the night, that they may have them constantly under their inspection. In the principal department the students will be permitted to study at their own rooms, but these are to be frequently visited by the professors.

The funds of the academy have been furnished by individuals from five or six different states. The students have come from seven or eight states; and belong to six different religious denominations. This evinces a Catholic spirit, and promises success.

The officers of the institution are a President, who is Professor of Intellectual and Moral Philosophy and Rhetoric; a Vice President, who is Professor of the Latin, Greek, and Hebrew Languages; a Professor of Mathematics and Natural Philosophy; an Assistant Teacher in the Mathematics and Languages; a Teacher in the Preparatory Department; and a gentleman, who acts as Steward, Treasurer, and Farmer. A Professor of Chemistry, Botany, and Mineralogy, and a Teacher of Modern Languages, are also contemplated.

We see nothing very peculiar in the course of study pursued: it is thorough, and in the principal department occupies four years.

The Ohio Baptist Education Society have a farm about one mile from the town of Granville, Ohio, connected with a literary institution.

The number of students is about sixty. It is intended that those young men who feel disposed shall spend a part of every day in manual labor, which, without interfering with their progress in study, will preserve their health, and defray a part of their expenses. The course of instruction in the Literary department is designed to prepare young men for practical life, or for the business of instructors. To these is added a Theological department, for the preparation of young men for the ministry in the Baptist Church.

The Episcopal Manual Labor School, under the care of the Episcopal Education Society, Bristol, Penn. has a very valuable farm, with ample buildings on it.

From the Western Recorder, of December last, we learn that facilities are about to be afforded for manual labor in connection with study, at the Stockbridge Academy, in Madison county, New-York. A mechanic shop was to have been ready for the accommodation of forty young men in January last. By laboring three hours a day, it was supposed each student would be able to earn enough to pay for his board and tuition. The establishment is respectable, and the location healthy, and favorable to the morals of the young.

Self-Instruction.—I do not regard any young gentleman as having taken the first step in the road to an honorable eminence who has not ceased to rely upon his friends, and his wealth, and every other factitious aid for success, and who has not thrown himself entirely upon the energies of his own mind. His whole soul must be imbued with the conviction that his earthly destiny is, under God, in his own hands; that he is to be what he makes himself, or, be assured, he never will be any thing worthy of imitation.

This, young gentlemen, is the secret of the success of our countryman, Franklin, and of many other men who have not enjoyed the advantages of public education with which you are favored. They soon learned that first lesson of all true greatness, a reliance upon one's own powers and the blessing of God. It was their self-education on which they rose to eminence; and permit me to tell you that every well educated man is, in a greater or less degree, a self-educated man. Seminaries of learning are useful, because in them only can the intellectual treasures of past ages and of the present generation be collected together and spread out before the lovers of knowledge. Seminaries of learning are useful, because in them are gathered youth of noble aspirations; and by their constant intercourse and collision in the same lofty pursuits, their minds become polished, invigorated, and stimulated to higher and still higher attainments.

Instructors are useful, because they may, by a judicious direction of your studies, prevent a useless expenditure of your time and energies. They may propose subjects for your investigation. They may point you the way to eminence. They may aid you in the great work of training and disciplining your mental powers: but, after all, that work must be *yours*. And yours will be the rich reward.

Important to Manufacturers of Pot Ashes.—By a reference to the legislative proceedings, it will be seen that the standing committee on trade and manufactures, to whom was referred sundry petitions on the subject of the manufacture and inspection of pot ashes, have made a report on that subject. It is highly interesting, and elicits many facts in relation to the matter, of general information to the public. In short, the true state of the case seems to be that, some two years since, Mr. E. Parce, of Chenango county, invented and secured by letters patent, an improvement in extracting the alkali from wood ashes, by a certain process in leaching the ashes, setting forth that nearly double the usual amount of pot ashes could be obtained from the same quantity of ashes on his patent plan, than could be made on the ordinary or old manner of working them. It seems also that, about the same time, a patent was obtained by Mr. Sherman, of Oswego county, by which he sets forth that while melting the pot ashes, a quantity of lime and salt may be added, which, when melted, renders it all good pot ash. This plan seems to be generally discountenanced, as it certainly must impair the purity of the article. It further appears that these two plans have been confounded under the general name of *patent pot ash*, and that the consequence has been that the former has suffered with the latter, and that a strong prejudice has arisen against the former or Parce's improvement. The committee have closely and industriously investigated the matter. Samples made on the old or usual manner, without using salt or other impurities, and also Parce's plan, (all under oath) were furnished to the committee, who employed the scientific and capable Dr. L. C. Beck, Prof. of Chemistry, to analyze the same, and report to them the result, with his remarks, &c. Samples were also furnished Dr. James Hadley, Prof. of Chemistry, who examined and certified the same. By all which the fact is clearly established, that *Parce's patent pot ashes* contain more real alkali than those made in the ordinary way. It further appears that from the same quantity of ashes, and the same labor, fuel, &c. nearly *one hundred* per cent. more pot ashes will be obtained on this patent plan than on the old manner of working. The importance of this invention will more fully appear from the fact that there is now more marketed in this state; according to the returns of the inspectors, annually, about $700,000 worth of this article. Supposing a gain, therefore, of *only fifty per cent.* on this amount, it would yield an annual saving of a very great sum to the people and manufacturers. It is hoped the ingenious inventor may, as he ought to be, amply rewarded for his invention, by an extensive and liberal sale of his right. For more minute particulars, the public are referred to the report of the committee. It is hoped that editors will generally notice this in such a manner as that public attention may be drawn to this important subject.—[Albany Argus.]

Tincture of Roses.—Take the leaves of the common rose (*centifoliæ*), place them, without pressing them, in a bottle, pour some good spirits of wine upon them, close the bottle, and let it stand until it is required for use. The tincture will keep for years, and yield a perfume little inferior to otto of roses; a few drops of it will suffice to impregnate the atmosphere of a room with delicious odor. Common vinegar is greatly improved by a small quantity being added to it.—[German paper.]

A Fat Sheep.—We are informed that a sheep was slaughtered a few weeks since, by Mr. Josiah Sutherland, of this town, from which was obtained *forty-seven and a quarter lbs.* of tallow. The wool from this sheep, after being cleansed, weighed *six and a half* pounds.—[Canandaigua Rep.]

[*From the Southern Agriculturist.*]

Reeling Silk.—With respect to the subject of silk, I have but little to say, when contrasting my knowledge of the business with those who are more experienced in the practical pursuit of it. But inasmuch as may pertain to the general good of the community, permit me to "cast in my mite." I amused myself last spring with about 2000 silk worms: as usual with me, I fed them upon the leaves of the common black mulberry of the country. They grew to their general size, in excellent health and vigor. As they matured they commenced spinning, and considering their situation they did well. The cocoons which they made were not generally as large as I had the year previous, which I think was occasioned by their being too much disturbed, owing to their situation. The silk which they produced is of excellent quality, exhibiting a very bright and lively fibre. There is, however, a manifest difference in the fineness and softness of the silk. Some of the cocoons are more coarse and harsh than the others; this difference attracted my attention, and by inspection I discovered that the lightest colored cocoons were the finest and softest silk. I have some large fair cocoons that are but a shade less than white; they uniformly are the finest and softest silk. This difference I cannot well account for, for they were produced by the same family of worms, were fed together on the same food, at the same time, and subject to the same vicissitudes. I can only admit that this difference in excellence is produced by worms of excellent constitutions; further, I submit to be corrected by my superiors on the subject.

When the cocoons were matured, I gathered them, and selected such as I intended for propagation; the rest were indiscriminately prepared for reeling: this I did in a very ready, simple, and easy manner, by which the silk is much improved. In order to destroy the vitality of the chrysalides, I procured a tin box with a top cover which shut very close; as I filled the box with cocoons, I sprinkled them with good spirits of wine, then closed the box tight, and set it in the sun. The heat soon evaporated the spirits, which when dissipated pervaded the whole cavity of the box, saturated the cocoons, and instantly suffocated the chrysalides. Thus the vital functions of the insect were destroyed without languishing. This process may be performed every three hours with the same box, while there is a warm sun. The spirits act upon the animal gummy matter of which the silk consists, dissolves it and sets the fibre free; improves the silk by leaving it bright, soft, and lively, and causes it to yield its fibres from the cocoon to the reel with the greatest freedom. Thus the process of reeling is performed with a facility unusually pleasing and profitable; for by this process a much greater quantity of reeling silk may be obtained from the same cocoon than is usually the case with the water bath, and by baking, which are both tedious and injurious to the silk, and of course unprofitable. I have had a ball or cocoon to run over the floor, similar to a ball of yarn, while I held the fibres in my fingers. For the principle in the use of spirits of wine, as above stated, I refer to "Dr. Lardner's excellent book on silk manufactures." To the application of the spirits of wine I have added camphor, which renders the process more immediately effectual, and is of much benefit to the cocoons, which are thus cured for market. Let objections (if any to

this principle) be made. Thus I have completed my principal design, in having obtained a knowledge of the nature, disposition and general properties of the silk worm, and particularly so as concerns the congeniality of this climate with their health and the quality of their silk. With this attainment I am highly gratified. In faith, I believe I am willing to hazard an opinion, so far as to say that with a grove of the white, or any other mulberry suitable for the production of silk, a suitable building, with the necessary fixtures for the business, silk may be made in Louisiana and its vicinity, equal in quantity and quality to any other part of the United States. I trust there are gentlemen sufficiently well acquainted with the climate of Louisiana and the propagation of silkworms, to acquiesce, or otherwise make me sensible of an error in my opinion.

I further believe, that it may be made a business of profit to the man of small capital—that in three months of every year, a single person well acquainted with the business may, with the aid of three small boys to gather leaves, &c. realize one thousand dollars in the product of labor from silk. I know of no business which I could more readily, and I think safely, recommend to every honest man, whose purse contains but few dollars, and whose house is ornamented with many healthy and promising children. I thing that any and every industrious man, who will cultivate a grove of mulberry trees, and obtain the other fixtures necessary, simply suited to the business, may realize three hundred dollars annually to every child of 12 or 13 years of age, that is able to labor. Such an income would do much more than maintain a family with all the necessary comforts of life. As a commodity of commerce, silk has ever been, is now, and ever will be, a cash article; and while human necessities exist, it will find a market, and command as ready a sale as cotton or any other raw material. Such emolument holds out strong inducements, and kindly invites the laboring part of the community into the silken garden, where, by their industry, they may not only obtain the common comforts of life, but with them may enjoy luxury. Hence, let honest industry dispel penury and distress. Let every rational man reflect, look into himself, and consider the end and aim of his existence, he will see that there is nothing wanting in his temporal concerns to render him comfortable and happy, but prudent application and persevering industry with economy. He who will embrace these principles as a maxim of conduct, will not be under the disagreeable necessity of disgracing himself, by annoying his neighbor with "pray, my good sir, can you favor me with the loan of five dollars a day or so." Accept the friendship of

J. B. BREWER.

CURIOSITY.—A native ewe, in the flock of Gen. Brown, in this village, recently brought three lambs, one a pure *white*, one a jet *black*, and the other (in our informant's words) "as *red* as a fox." All are alive and remarkably sprightly. They exhibit a curiosity well worthy of the attention of the naturalist.

Sir Archy.—This famous horse has cleared for his proprietor, (independent of his achievements on the turf,) $70,000. He is still living, but in the extremity of old age, (in his 30th or 31st year.) His vigor is extinct. He has not shed his hair for several years, and it has grown to the length of two or three inches. A gentleman who has lately seen him, says that of all animals he is the worst looking, and would be the last taken for the most celebrated horse of his age. His owner treats him with all possible kindness, as it would be unpardonable indeed if he did not. Provender without stint, at rack and manger, and a soft and delicate bed, proclaim the proprietor's gratitude. The door is left open to allow his egress and ingress at pleasure, but it is observed that Archy only comes out to drink, and having done so, immediately returns to his stable.

Except those of the finny tribes, it is conjectnred that Sir Archy's posterity outnumbers that of any living animal.—[Richmond Whig.]

HAPPINESS OF ANIMALS.—It is impossible to view the cheerfulness of animals and birds without pleasure; the latter especially appear to enjoy themselves during the fine weather, in spring and summer, with a degree of hilarity which might be almost envied. It is astonishing how much man might do to lessen the misery of those creatures, which are either given him for food or use, or for adding to his pleasure, if he were so disposed. Instead of which, he often exercises a degree of wanton tyranny and cruelty over them, which cannot be too much deprecated, and for which no doubt he will be held accountable. Animals are so capable of showing gratitude and affection to those who have been kind to them, that I never see them subjected to ill treatment without feeling the utmost abhorrence of those who are inflicting it. I know many persons who, like myself, take a pleasure in seeing all the animals about them appear happy. Cows will show their pleasure at seeing those who have been kind to them, by moving their ears gently, and putting out their wet noses. My old horse rests his head on the gate with great complacency, when he sees me coming, expecting to receive an apple or a piece of bread. I should even be sorry to see my poultry and pigs go out of my way with any symptoms of fear.—[Jesse's Gleanings.]

[*From the Western Monthly Magazine for May.*]

A SCENE IN 'THE DARK AND BLOODY GROUND.'

JAMES MORGAN, a native of Maryland, married at an early age, and soon after settled himself near Bryant's station, in the wilds of Kentucky. Like most pioneers of the west, he had cut down the cane, built a cabin, deadened the timber, enclosed a field with a worm-fence, and planted some corn.

It was on the 15th day of August, 1782; the sun had descended, a pleasant breeze was playing through the surrounding wood, the tall cane bowed under its gentle influence, and the broad green leaves of the corn proudly waved in the air; Morgan had seated himself in the door of the cabin, with his infant on his knee; his young and happy wife had laid aside her spinning-wheel, and was busily engaged in preparing the frugal meal. That afternoon, Morgan had accidentally found a bundle of letters, which he had finished reading to his wife, before he took his seat at the door. It was a correspondence in which they had acknowledged an early and ardent attachment for each other, and the perusal left evident traces of joy on the countenance of both; the little infant, too, seemed to partake of its parents' feelings, by its cherub smiles, its playful humor, and its infantile caresses. While thus agreeably employed, the report of a rifle was heard; another, and another, followed in quick succession. Morgan sprang to his feet, his wife ran to the door, as they simultaneously exclaimed, 'Indians!' The door was immediately barred, and the next moment all their fears were realized, by a bold and spirited attack from a small party of Indians. The cabin could not be *successfully* defended, and time was precious. Morgan, cool, brave, and prompt, soon decided. A puncheon was raised; while Morgan was in the act of concealing his wife under the floor, a mother's feelings overcame her, she arose, seized her infant, but was told that its cries would betray her place of concealment. She hesitated, gazed silently upon it. A momentary struggle between affection and duty took place. She once more pressed her child to her agitated bosom, again, and again, and kissed it with impassioned tenderness. The infant, alarmed at the profusion of tears that fell upon its cheek, looked up in its mother's face, threw its little arms around her neck, and wept aloud. 'In the name of Heaven, Eliza, release the child, or we shall all be lost,' said the distracted husband, in a soft imploring tone of voice, as he forced the infant from the arms of his wife, hastily replaced the puncheon, took up his gun, knife and hatchet, ran up the ladder that led to the garret, and drew it after him. In a moment the door was burst open, and the savages entered. By this time Morgan had secured his child in a bag, and lashed it to his back, then throwing off some clapboards from the roof of the cabin, resolutely leaped to the ground. He was instantly assailed by two Indians. As the first approached, he knocked him down with the butt of his gun. The other advanced with uplifted tomahawk; Morgan let fall his gun, and *closed in*. The savage made a blow, missed his aim, but severed the cord that bound the infant to his back, and it fell. The contest over the child now became warm and fierce, and was carried on with knives only. The combatants thrust and plunged their deadly instruments into each other, with desperate fury. The robust and athletic Morgan at length got the ascendancy. Both were badly cut, and bled freely, but the stabs of the white man were better aimed and deeper. The Indian now became frantic with rage and disappointment. His teeth were clenched together, the veins in his neck swollen, his eyes seemed to emit sparks of fire, as he grasped Morgan by the hair, elevated himself on tip-toe, and raised his bloody knife. It descended with a desperate intent, but Morgan, watchful as he was brave, took advantage of the moment, made a quick and violent thrust at the side of the Indian—the blood gushed out, the savage gave a feeble groan, and sunk to the earth. Morgan hastily took up his child and gun, and hurried off. The Indians in the house, busily engaged in drinking and plundering, were not apprized of the contest in the yard, until the one that had been knocked down gave signs of returning life, and called them to the scene of action. Morgan was discovered, immediately pursued, and a dog put on his trail. Operated upon by all the feelings of a husband and a father, he moved onward with the speed of a hunted stag, and soon outstripped the Indians, but the dog kept in close pursuit.—Finding it impossible either to outrun or elude the cunning animal, trained to hunts of this kind, he halted, waited until it came within a few yards of him, fired and brought it down, reloaded his gun, and again pushed forward. Bryant's station was not far off—firing was heard—he stopped for a moment, and again advanced. Fires could now be distinctly seen, extending for some distance on both sides of Elkhorn creek. The station was in view; lighted arrows fast descending on the roof of the cabins; it was no longer doubtful; Bryant's station was besieged by a large force, and could not be entered at that time. He paused—the cries of his infant, that he had again lashed to his back, aroused him to a sense of his own danger, and his wife's perilous situation. Another effort was made, and he in a short time, reached the house of a brother, who resided between the station and Lexington, where he left the child, and the two brothers immediately set out for his dwelling. As they approached the clearing, a light broke upon his view—his speed quickened, his fears increased, and the most agonizing apprehensions crowded upon his mind. He emerged from the cane-brake, beheld his house in flames, and almost burned to the ground. 'My wife!' he exclaimed, as he pressed one hand to his forehead, and grasped the fence with the other, to support his tottering frame. He gazed for sometime on the ruin and desolation before him, advanced a few steps, and sunk exhausted to the earth. Morning came; the bright luminary of heaven arose, and still found him seated near the almost expiring embers. In his right hand, he held a small stick, with which he was tracing the name of Eliza on the ground—his left was thrown over his favorite dog, that lay by his side, looking first on the ruin, and then on his master, with evident signs of grief. Morgan arose; the two brothers now made a search, and found some bones, almost burned to ashes, which they carefully gathered and silently consigned to their mother earth, beneath the wide spread branches of a venerable oak consecrated by the purest and holiest recollections. One of the most interesting pages in the annals of Tacitus is that in which he so eloquently and so feelingly describes the return of Agrippina, to her country and her home, bearing the urn that contained the ashes of her murdered husband, surrounded by her weeping children and mourning friends. There is an awakening interest in the deep-rooted sorrow, that calls into action all the kind feelings and tender sympathies of our nature; and the heart can, no doubt, be as warmly operated upon in the wild plains of America as on the classic grounds of Italy. There is something peculiarly touching in the performance of the last sad duty of burial, whether encompassed by the proud and lofty towers of Imperial Rome, while the cries of mourning thousands ascend to heaven, or surrounded by the tall green trees of republican Kentucky, where the stricken heart silently pours forth its sorrows.

On the evening of the 16th of August, Morgan, his brother, and a number of men from Lexington, gallantly threw themselves into the besieged station, and saved the fortress. After a bold, spirited, and unsuccessful siege, Simon Girty drew off his men on the morning of the third day, and marched in the direction of the Lower Blue Licks. By this time, the whole neighborhood had risen in arms, and with the aid promptly given by Harrodsburg and Boon's station, one hundred and sixty six mounted men mustered under the command of Colonels Todd and Trigg. The line of march was immediately taken up, and the pursuit commenced. After marching a short distance, colonel Daniel Boon, and some others, watchful and experienced, and well acquaint-

ed with Indian *signs*, discovered strong evidences of tardiness and ostentation, that seemed to invite an attack. The trees were chopped for the purpose of pointing out the *route*, while they took pains to conceal the number, by marching in single file, stepping in each other's track, and contracting their camps. As the van arrived on the south bank of Licking river, at the Lower Blue Licks, a few scattering Indians were discovered, *slowly* and *carelessly* retiring over the hills on the north side of the river. A halt was immediately called, and a consultation took place. Neither of the commanding officers being much acquainted with Indian warfare, they asked the opinion and advice of the soldier and woodsman, colonel Boon, who was well acquainted with the situation of the ground. He, in his plain, frank, and impressive manner, stated, that in his opinion, the enemy invited an attack; their number might probably vary from three to five hundred, owing to the ambiguous nature of the sign; the main body was near, and prepared for action, and the ground was well calculated for *ambuscade*. The river wound in an irregular ellipsis, near the centre of which, and on the top of the hill then in view, passed the great Buffalo road, leading to Limestone; two ravines made up in different directions, about one mile in advance, and terminated near each other, on the right and left of the road; both ravines were covered with small oak and underwood, while the ground between the river and ravines was uneven and barren; the Indians would be able to fight under cover, while the Kentuckians could scarce be protected by a single shrub. It was, therefore, most advisable to wait for the reinforcement hourly looked for, under the command of colonel Logan, and in the meantime, the surrounding country could be examined, and the position of the enemy reconnoitered, but in the event of an immediate attack being resolved on, the troops ought to be divided; one division to march up on the south side of the river, cross the mouth of a small creek, and fall upon the outside of the ravines, while the other division should place itself in a position to take advantage of circumstances, co-operate with the first division in event of an attack, and make an effort to take the enemy in their *own snares*, should they be in *ambuscade*. Already had Boon gained over to his opinion a large portion of those who heard him, when the rash and impatient M'Gay applied the rowels to the sides of his horse, and plunged into the stream, crying out at the same time in a loud voice, "Those who are not cowards will follow me, and I will show them where the Indians are!" A confusion, so common and so fatal among undisciplined troops, now took place. One followed, another followed, some doubted, others wavered, a few were determined, and a part stood firm. But unfortunately, the prompt and authoritative word '*halt*,' was not given, and the council was broken up. Morgan, together with some others, who had listened to the advice of Boon, were convinced of its correctness, and opposed to crossing the river, but at length suffered themselves to be carried along in the crowd, until the whole force was on the northern bank. No order was observed, no command was given. The narrow strip of bottom-ground, in which the salt-spring is situated was soon passed, and the hill ascended. Here they were led, by the re-appearance of the few Indians first discovered, to a ridge on the left, which terminated near the two ravines, and at its termination, was covered with small oak. The distance from the spring to the ravines was about one mile, and the intervening ground uneven and barren; for ages back it had been stripped of its foliage by the tread of the innumerable herds of deer and buffalo that resorted to the Lick, and presented an almost unbroken pavement of rocks, through which a few scattering scrubby oaks had here and there forced their way. M'Gay and M'Bride, at the head of the party in front, that first reached the woods, were instantly attacked by the Indians that lay concealed, and waiting for them. The action now commenced, and soon became warm and bloody. A constant and destructive fire was kept up. The savage war-whoop, that burst from both ravines, filled the air with loud and increased peals of discordant yells. It was soon discovered that the two ravines, which concealed the enemy, extended beyond the whole line of the Kentuckians, and now poured forth a countless horde of hungry cannibals prepared for slaughter and thirsting for blood. Todd and Trigg rushed forward, and fearlessly fronted the enemy; they fought, they bled, and fell in the early part of the action, nobly evincing that they were as brave in the field of battle, as amiable in private life. The patriot Harland was also slain, bravely defending himself, and proudly sustaining his country's honor. The gallant and youthful Boon fell by the side of his heroic father, who hewed his way through the enemy, and laid every opposing warrior low. All that could be accomplished by patriotism, effected by bravery, won by a disregard of death, or gained by a love of country, was now performed. Arm to arm, breast to breast, they had struggled with the enemy, but all in vain. A force of three to five, and that in ambuscade, was overwhelming and irresistible. Pressed in the front and assaulted on the right, attacked on the left, and about being surrounded, many of the best and ablest slain, and others fast falling in every direction, a retreat was attempted under the edge of the tomahawk. When the firing commenced, the greater portion of the troops had dismounted; some regained their horses, others retreated on foot. The victorious enemy pursued with deadly and victorious perseverance. The retreating Kentuckians hurried over the rocks, rushed down, and the victors and the vanquished plunged together in the stream; some were slain before they reached the bank, but the river presented a scene bloody as it was destructive. The day was warm, the retreat rapid; the unarmed and exhausted Kentuckians fell easy victims to the tomahawk and scalping knife, and in a short time Licking ran streams of blood. The few who had gained the southern shore on horseback, halted and fired: this caused a momentary check, but after a short pause, the pursuit was again renewed, and safety only found in Bryant's station, thirty-six miles from the field of battle. Here the defeated Kentuckians met the van of Col. Logan's command, about four hundred strong. The Colonel halted until the rear came up, and the next day marched in pursuit of the enemy. The battle ground was reached the second day after the action, and presented a scene that agonized every bosom, pained every heart, and moistened every eye. The dead bodies, exposed to the rays of a scorching sun, were so much swollen and mangled, that the father, brother and friend, who had come to perform the last sad rites of burial, were denied even the melancholy satisfaction of knowing whether those for whom they sought were killed or taken prisoners. The aged parent, in hope of recognizing a favorite son, turned, anxiously turned, body after body, but all in vain; the tear rolled down the furrowed cheek, yet it fell upon he knew not whom.

James Morgan was among the last that had crossed the river, and was in the rear until the hill was ascended. As soon as he beheld the Indians reappear on the ridge, he felt anew his wrongs, and recollected the lovely object of his early affections. He urged on his horse, and pressed to the front. While in the act of leaping from his saddle, he received a rifle ball in his thigh, and he fell: an Indian sprang upon him, seized him by the hair, and applied the scalping-knife. At this moment, Morgan cast up his eyes, and recognized the handkerchief that bound the head of the savage, and which he knew to be his wife's. This added renewed strength to his body, and increased activity to his fury. He quickly threw his left arm around the Indian, and with a death-like grasp, hugged him to his bosom, plunged his knife into his side, and he expired in his arms. Releasing himself from the savage, Morgan crawled under a small oak, on an elevated piece of ground, a short distance from him. The scene of action shifted, and he remained undiscovered and unscalped, an anxious spectator of the battle. It was now midnight. Girty and his savage band, after taking all the scalps they could find, left the battle ground. Morgan was seated at the foot of the oak, its trunk supporting his head. The rugged and uneven ground that surrounded him was covered with the slain; the once white projecting rocks, bleached with the rain and sun of centuries, were crimsoned with the blood that had warmed the heart and animated the bosom of the patriot and the soldier. But a few hours before, he had seen the gallant Todd, Trigg, Harland, Boon, and many others, in all the pride of life, flushing with hope, glowing with zeal, and burning with patriotism—now lifeless, as the rocks that lay scattered over '*the dark and bloody ground*;' friends and enemies, the red and the white man, side by side, quietly slumbering in eternal repose. The pale glimmering of the moon occasionally threw a faint ray of light upon the mangled bodies of the dead, then a passing cloud enveloped all in darkness, and gave additional horror to the feeble cries of a few, still lingering in the last agonies of protracted death, rendered doubly appalling by the coarse growl of the bear, the loud howl of the wolf, the shrill and varied notes of the wild-cat and panther, feeding on the dead and dying. Morgan beheld the scene with heart-rending sensations, and looked forward with the apathy of despair, to his own end. A large and ferocious looking bear, covered with blood, now approached him; he threw himself upon the ground, silently commended his soul to Heaven, and in breathless anxiety awaited his fate. The satiated animal slowly passed on without noticing him. Morgan raised his head, was about offering thanks for his unexpected preservation, when the cry of a pack of wolves opened upon him, and again awakened him to a sense of his danger. He placed his hands over his eyes, fell on his face, and in silent agony again awaited his fate. He heard a rustling in the bushes—steps approached—a cold chill ran over him. Imagination, creative, busy imagination, was actively employed—death, horrible death, awaited him; his limbs would, in all probability, be torn from his body, and he devoured alive. He felt a touch—the vital spark was almost extinguished—another touch more violent than the first, and he was turned over—the cold sweat ran down in torrents—his hands were violently forced from his face—the moon passed from under a cloud, a faint ray beamed upon him—his eyes involuntarily opened, and he beheld his wife, who, in a scarce audible voice, exclaimed, 'my husband!' and fell upon his bosom.

Morgan now learned from his wife that, after the Indians had entered the house, they found some spirits, and drank freely; an altercation soon took place, one of them received a mortal stab and fell; his blood ran through the floor on her; believing it to be the blood of her husband, she shrieked aloud, and betrayed her place of concealment. She was immediately taken and bound. The party, after setting fire to the house, proceeded to Bryant's station. On the day of the battle of the Blue Licks, a horse with saddle and bridle rushed by her, which she knew to be her husband's. During the action the prisoners were left unguarded, made their escape, and lay concealed beneath some bushes under the bank of the river. After the Indians had returned from the pursuit, and left the battle-ground, she, with some other persons that had escaped with her, determined to made a search for their friends, and if on the field and living, save them if possible from the beasts of prey. After searching for some time, and almost despairing of success, she fortunately discovered him. The party of Col. Logan found Morgan and his wife, and restored them to their friends, their infant, and their home.

Mason County, Kentucky.

Sayings for Farmers, by Dr. Franklin.

He that lives upon hope will die fainting—industry need not wish.

There are no gains without pains.

At the working man's house hunger looks in but never enters.

Plough deep while sluggards sleep, and you shall have corn to sell or keep.

One *to-day* is worth two *to-morrows*.

Handle your tools without mittens—a cat in gloves catches no mice.

He that by the plough would thrive,
Himself must either hold or drive.

The eye of the master will do more work than both his hands. Not to oversee workmen is to leave them your purse open.

A fat kitchen makes a lean will.

If you would be rich, think of saving as well as getting.

What maintains one vice would train up two children.

Beware of *little* expenses—a small leak will sink a great ship.

If you would know the value of money, go and try to borrow some—for he that goes borrowing goes sorrowing.

Pride is as loud a beggar as want, and a great deal more saucy.

Pride breakfasted with plenty, dined with poverty, and supped with infamy.

Lying rides on debt's back.

He that hath a trade hath an estate; and he that hath a calling hath a place of profit and honor. A ploughman on his legs is higher than a gentleman on his knees.

It is hard for an empty bag to stand upright.

If you do not hear reason she will surely rap your knuckles.

Creditors have better memories than debtors.

For age and want save what you may,
No morning's sun lasts the whole day.

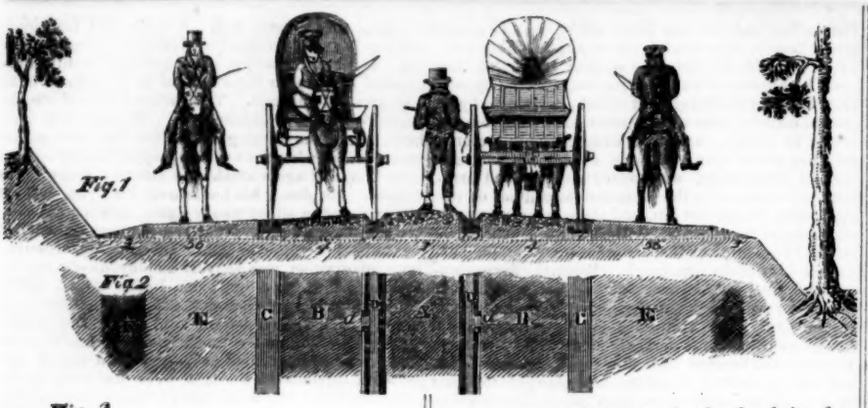

Fig. 1

Fig. 2

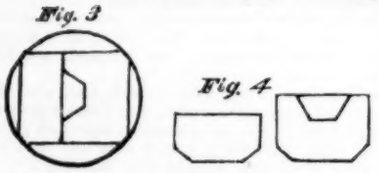

Fig. 3

Fig. 4

[*From the New-York Mechanics' Magazine.*]

Mr. JNO. S. WILLIAMS, Engineer and Superintendant of the Cincinnati, Columbus, and Wooster Turnpike Company, some time since undertook (gratuitously) to survey the route from Goshen to Columbus, with a view as of ascertaining the best means of constructing a turnpike road thereon. A report has been made by him, and published by the board of directors, from which we learn that the estimated amount of forming a M'Adamized road the distance of 81 miles, would be an expense which Mr. W. doubts the propriety of incurring. Mr. W. enters into a detailed statement to show that wood can be substituted for stone in the improvement of roads, and gives instances, gathered from answers to interrogatories put to several engineers, of the durability of causeways so constructed, from which it appears that good timber laid in clay, and partly covered, will last from 20 to 30 years. From the estimates made by Mr. W. it appears that to cover a road with timber hewn a foot square and covered with earth, of 20 feet wide only, the expense would be $257,419 80. This plan also is considered too expensive, and Mr. W. inserts a proposition for a track road, constructed of timber (see plate), the advantages of which he thus describes:

"It becomes necessary to inquire in what way timber, which is so plenty, and appears to last well, can be disposed of to our advantage. My reflections upon this subject have brought me to believe that timber hewn flat and laid in ways or tracks lengthwise of the road, to bear the pressure of wheels, would insure the end desired. The method that I believe to be the best is to hew and lay four ways or tracks, two quite flat, say one foot on the face, and two furrowed or guttered so as to receive the near wheels of all waggons and carriages.

"These tracks ought to be laid about five feet apart from centre to centre. The gutter or furrow made to receive the near wheels of carriages should be about 3 inches deep, and say 4 inches flat in the bottom, the tops being 6 or 7 inches open. This would receive the wheels of all or most waggons. The centre of this track, laid say 5 feet from the centre of its fellow track, which is a foot on the face, would give such a diversity of width, that while the near wheel is kept in the furrow the off wheel would be on the other track, notwithstanding a small diversity in the width which exists between the wheels of different waggons.

"The face of the outer or off track should be laid on a level with the bottom of the furrow in the near or inner tracks, and the horse path should be gravelled or M'Adamized on a level with the face of the outer track, and rise gently across the horse path towards the near track for the purpose of draining, the depth of the furrow admitting of this circumstance.

"The two near tracks ought to be laid about four feet apart, from centre to centre, and gravelled or M'Adamized between them, for what I shall call the driver's path. This path would accommodate footmen, horsemen, and teamsters, or, if thought best, a horseman's path may be constructed on each side of the outer or off tracks. Four feet for the driver's path, and five feet each for the horse paths, together with six inches on each side for the surplus width of the outer tracks, make a total width of fifteen feet from out to out of the two carriage ways; eight and a half feet on each side would be the width of summer road and ditch in a 33 feet graduation.

"For the purpose of draining, these tracks should be inclined not less than half a degree. In fact, no part of any M'Adamized road ought to be less. The near or guttered tracks might be changed for a few inches at the foot of the slopes from the guttered to the flat form without any inconvenience to the travel: this would form a side drain across the horse-paths. The outer tracks being flat would present no obstacle to draining.

"By carriages keeping always to the right, the power of this kind of road I conceive would be much greater than that of common roads, for more carriages could operate upon them without obstruction or danger, than if allowed to run promiscuously.

"As respects the ease of travelling, a road thus constructed being perfectly smooth and sidewise level, I conceive it would be superlative. It is observable, in the travelling of M'Adamized or other roads, that a great difficulty exists in keeping the wheels of waggons out of the ruts or furrows that wear, or accident has made in the road. There seems to be a propensity or habit in horses to follow each other, and consequently to run in the same track. In this order they are the most easily driven. This very propensity or habit of horses is a drawback of twenty per cent. upon the permanence of M'Adamized covers. It is our privilege, if not our duty, to turn if possible this propensity to our advantage: thus, in such a road as the one under consideration, little or no trouble would be necessary to keep the wheels steadily and regularly in the tracks. When snow would cover the road and thereby render the tracks obscure, the chances would be in favor of the road being frozen so as to bear in any part, and render the keeping of the tracks unnecessary.

"In case a carriage of speed should overtake one of burthen, it will be easy for it to mount over the driver's path and run in the left hand track until an opportunity appears for it to resume its proper one: the driver's path being raised but three inches.

"As to the lastingness of timber thus situated, I am of opinion it would be good. The earth or clay would completely envelope every stick its whole length, except the upper surface, by which its native juices would be completely extracted, particularly if the timber be large enough to cut through the heart. As to the capability of wood to sustain the travel for a great length of time, my experience in this particular is too limited to assert positively, but from what observations I have been able to make, I am of opinion that it would compare better with broken stone than might at first be imagined. The sides of the furrows in the near tracks would suffer abuse; but when we consider that they would be three inches thick at the top, and four at the bottom, and that as they would wear they would give more room, and thereby be less likely to wear, it is not unreasonable to conclude that good timber well laid, under an ordinary travel, would last on an average of fifteen years. The near tracks might not last more than ten, while the outer or off tracks would last twenty. There being little or no jolting, or even jarring, the great source of wear in common roads, the track-road would out-last all others, respect being had to the materials of construction.

"In regard to the cost of constructing, and the perpetuity of such a road, it may be well to observe that at present, on a great portion of the line, timber sufficient for the tracks abounds within 30 to 50 feet of the centre; a great portion of which must be removed before the line can be improved in any manner. On no part will timber have to be moved far from its native to its destined locality, and as regards perpetuity, the prospect is more favorable than that of M'Adamized roads in a country where lime-stone, the material of construction and repair, is barely sufficient for other branches of improvement, during this and coming ages. Good oak and other timber can at all times and forever be cultivated upon the sides of the road, rendering it at once beautiful, pleasantly shady, and perpetual: advantages by no means attending M'Adamized roads, which will forever continue to exhaust the present existing material without there being a possibility of a renewal. This would in future prove to be a serious disadvantage in districts of country but scantily supplied at present.

"The horse paths, the driver's path, and the summer roads, might be improved by laying upon them a coat of gravelly earth, which abounds in many parts of the country destitute of stone, and can be procured and laid at a very small cost.

"Gravelly earth will present an even and pleasant road to travel, if the weight of loaded wheels can be kept from it, as is witnessed on the tow-paths of our canals, where constructed of that material. But I would suggest that the horse and driver's paths be M'Adamized to the depth of six inches, which would be amply sufficient for any purposes for which it is intended: under this might be laid, say, six inches of gravelly earth, whenever it shall be found convenient. It might also be proper to gravel, say, five feet of each summer road, or at least construct the upper surface of them of the most solid earth in the neighborhood. The tracks may be laid of timber, round except the upper surface. It would, however, be better to form them of large, well grown timber, split or cut through the heart: the sides squared, so as to take off the bark and white-wood. These tracks may be of pieces any convenient length, with the ends brought to a determinate thickness, and laid upon a block placed to receive them. The under side of the tracks ought to be straightened or partly flattened, in order to secure a more steady position of them. The earth ought to be closely applied to the bottom and sides, not only to effect this object, but to secure a more speedy extraction of the acid from the wood. The limey quality transferred from M'Adamized horse and driver's paths to the wooden tracks, would be likely to prevent both wear and decay. Where the road is necessarily much curved, it ought to be M'Adamized, and the tracks dispensed with, particularly if good material is convenient, which is almost invariably the case, where your line is crooked. The line from Goshen to Columbus, as will be seen by the map, is laid almost entirely of long straight lines, not more than one mile and eighty-two poles requiring to be M'Adamized, and that where the stone is most plenty. Eighty

miles of the line, therefore, is suitable for tracks, which ought first to be laid of squared timber, after which the two inner ones might be guttered or furrowed by machinery propelled by steam or animal power, and moved along the tracks simultaneously as the operation proceeds.

"The proposed method of improvement, if found to answer the purposes of traffic and travel, whether it shall last equal to the expectation of its inventor or not, will be found to be one of immense utility, by reason of the cheapness of its first construction, which brings the first cost of improvements to a level with the scanty means of a country newly settled, and as it were yet in the wilderness."

Mr. Williams advocates, with much earnestness, internal improvements of every description: the report is well drawn up, and is of itself evidence that it has been done by a hand well acquainted with the subject upon which it treats. We think, however, that in speaking of the probable advantages to be derived from systems that he recommends, he is rather too sanguine of the result. We cannot do better than let Mr. W. speak for himself:

"Any state or nation that would adopt a general system of internal improvement by roads and canals would do away sectional jealousy. The interests of the different parts would become one by the common course of intercommunication. Inter-marriages would take place, and a general diffusion of acquaintanceship, and a union of interest would be the result. At the same time that wealth, the source of power, would be thus increased, power itself would follow its consequence of the system. The means of intercourse would give a facility to the transportation of men to defend the country, and stores to render those men comfortable; munitions of war, too, would reach every point to render formidable those forces, which with the greatest facility could be conveyed so as to render the effective force double to what the same means would be without it. This system would at once unite the citizens as if they inhabited but a small island, while at the same time they would be as strong as if they filled a vast territory."

Such a state of things is very desirable, and perhaps may occur, but we think it not likely in our time. Mr. W. concludes the report thus:

"The hand which guides this pen was among the first to fell the trees of the interminable territorial forest, to let the sun see the soil that now in the state of Ohio presents so many pleasing subjects for contemplation and reflection."

Affording another instance that, in a free country like this, industry and talent will always be duly appreciated, and in most cases amply rewarded.

[Since the above was in type we have received a communication from Mr. Williams, by which we learn that the Company have determined to construct eight miles of road on this plan.—Ed. Mec. Mag.]

Arabian Horses.—When the Arab falls from his mare, and is unable to rise, she will immediately stand still, and neigh until assistance arrives. If he lies down to sleep, as fatigue often compels him, in the midst of the desert, she stands watchful over him, and neighs and rouses him if either man or beast approaches. An old Arab had a valuable mare that had carried him for fifteen years in many a hard fought battle, and many a rapid weary march; at length, eighty years old, and unable longer to ride her, he gave her, and a scimetar, that had been his father's, to his eldest son, and told him to appreciate their value, and never lie down to rest until he had rubbed them both as bright as a looking glass. In the first skirmish in which the young man was engaged he was killed, and the mare fell into the hands of the enemy. When the news reached the old man, he exclaimed that "life was no longer worth preserving, for he had lost both his son and his mare, and he grieved for one as much as the other," and he immediately sickened and died.

Man, however, is an inconsistent being. The Arab who thus lives with and loves his horses, regarding them as his most valuable treasure, sometimes treats them with a cruelty scarcely to be believed, and not at all to be justified. The severest treatment which the English race-horse endures is gentleness compared with the young Arabian. Probably the filly has never before been mounted; she is led out: her owner springs on her back, goads her over the sand and rocks of the desert at full speed for fifty or sixty miles without one moment's respite. She is then forced, steaming and panting, into water deep enough for her to swim. If immediately after this she will eat as if nothing had occurred, her character is established, and she is acknowledged to be a genuine descendant of the *Kochlani* breed. The Arab is not conscious of the cruelty which he thus inflicts. It is an invariable custom, and custom will induce us to inflict many a pang on those whom, after all, we love.

Ibrahim, a poor and worthy Arab, unable to pay a sum of money which he owed, was compelled to allow a merchant of Rama to become a partner with him in a valuable mare. When the time came he could not redeem his pledge to this man and the mare was sold. Her pedigree could be traced on the side of sire and dam for full five hundred years. The price was three hundred pounds, an enormous sum in that country. Ibrahim went frequently to Rama to inquire after the mare; he would embrace her, wipe her eyes with his handkerchief—rub her with his shirt sleeves, and give her a thousand benedictions during the whole hours that he remained talking to her. "My eyes!" would he say to her, "my soul! my heart! must I be so unfortunate as to have thee sold to so many masters and not keep thee myself? I am poor, my antelope! I brought thee up in my dwelling as my child. I did never beat nor chide thee. I caressed thee in the fondest manner. God preserve thee, my beloved! thou art beautiful, thou art sweet, thou art lovely, God defend thee from envious eyes!"

An Arab shieck or chief, who lived within fifty miles of Bussorah, had a favorite breed of horses. He lost one of his best mares, and could not for a long while discover whether she was stolen or had strayed. Some time after, a young man of a different tribe, who had long wished to marry his daughter, but had always been rejected by the shieck, obtained the lady's consent and eloped with her. The shieck and his followers pursued, but the lover and his mistress, mounted on one horse, made a wonderful march and escaped. The old chief swore that the fellow was either mounted on the devil, or on his favorite mare he had lost. After his return, he found the latter was the case; that the lover was the thief of his mare as well as his daughter; and that he stole the one to carry off the other. The chief was quite gratified to think he had not been beaten by a mare of another breed; and was easily reconciled to the young man, in order that he might recover the mare, which appeared an object which he was more solicitous than about his daughter.

Our horses would fare badly on the scanty nourishment afforded the Arabian. The mare usually has but one or two meals in twenty four hours. During the day she is tied at the door of the tent, ready for the Bedouin to spring, at a moment's warning, into the saddle; or she is turned out before the tent ready saddled, the bridle merely taken off, and so trained that she gallops up immediately at her master's call. At night she receives a little water, and with her scanty provender of five or six pounds of barley, or beans, and sometimes a little straw, she lies down content in the midst of her master's family. She can, however, endure great fatigue; she will travel fifty miles without stopping; she has been pushed, on emergency, one hundred and twenty miles, and occasionally, neither she nor her rider has tasted food for three whole days.

Most of our readers probably are horsemen. Their memories will supply them with many an instance of intelligence and fidelity in their horses, and particularly in the hackney—the every day companion of man. A friend of ours rode thirty miles from home on a young horse which he had bred, and which had never before been in that part of the country. The road was difficult to find, but by dint of inquiry he at length reached the place he sought. Two years passed over, and he had again occasion to take the same journey. No one rode this horse but himself, and he was perfectly assured that the animal had not since been in that direction. Three or four miles before he reached his journey's end he was benighted. He had to traverse moor and common, and he could scarcely see his horse's head. The rain began to pelt. "Well," thought he, "here am I, far from any house, and know not, nor can I see an inch of my road. I have heard much of the memory of the horse—it is my only hope—so, my fine fellow," throwing the reins on his horse's neck, "go on." In half an hour he was safe at his friend's gate.

Cunningham in his valuable account of New South Wales, says, "A friend of mine in the habit of riding a good deal, found that whenever he approached a gully, his sagacious horse invariably opposed his wishes to cross at the particular spot he had been accustomed to, always endeavoring to lead off to another part of the gully, where no passage was known to exist by his rider. Resolving to see whither the cunning rogue would go, he gave him the rein, and very soon found himself carried over the gully by a route he had never before followed. Still however, thinking that the former way was the nearest, he was curious enough to have both measured, when he found the horse's judgment correct; that way being the nearest by several hundred yards.

Vegetable Mould.—The first inroads of fertility on barrenness are made by the smaller lichens, which, as Humboldt has well observed, labor to decompose the scorified matter of volcanoes, and the smooth and naked surfaces of sea-deserted rocks, and thus to "extend the dominion of vitality." These little plants will often obtain a footing where nothing else could be attached. So small are many that they are invisible to the naked eye, and the decay of these, when they have flourished and passed through their transient epochs of existence, is destined to form the first uxuvial layer of vegetable mould; the successive generations give successive increments to that soil from which men are to reap their harvests, and cattle to derive their food; from which forests are destined to spring, and from which future navies are to be supplied. But how is this frail dust to maintain its station on the smooth and polished rock, when vitality has ceased to exert its influence, and the structure which fixed it has decayed? This is the point which has been too generally overlooked, and which is the most wonderful provision of all: the plant, when dying, digs for itself a grave, sculptures in the solid rock a sepulchre in which its dust may rest. For chemistry informs us that not only do these lichens consist in part of gummy matter, which causes their particles to stick together, but that they likewise form, when living, a considerable quantity of oxalic acid; which acid, when by their decay set free, acts upon the rock, and thus is a hollow formed in which the dead matter of the lichen is deposited. Furthermore, the acid, by combining with the limestone or other material of the rock, will often produce an important ingredient in the vegetable mould; and not only this, the moisture thus conveyed into the cracks and crevices of rocks and stones, when frozen, rends them, and by continual degradation, adds more and more to the forming soil. Successive generations of these plants successively perform their duties, and at length the barren breakers, or the pumice plains of a volcano, become converted into fruitful fields.—[Professor Burnett's Lecture.]

Selections from the German, &c.—Life is a flower-garden, in which new blossoms are ever opening as fast as others fade. Nature is the mirror of the Invisible One.—[Witschel.]

The first fault man commits is to take theories for experience; the second to consider his own experience as that of all.—[Menzel.]

Where children are, is a golden age.—[Novales.]

Between congenial minds, dissensions are most painful, as discords are the harsher the nearer they approach to concord.—[Jean Paul.]

Anger wishes the human race had but one neck, love but one heart, grief two tears, and pride two bended knees.—[Ibid.]

Two things fill my mind with ever new and increasing admiration and veneration, the oftener and more constantly they occupy my thoughts—the starry heavens above me, and the moral law within me.—[Kant.]

Forgiveness is the finding again of something lost; misanthropy, a prolonged suicide.—[Schiller.]

There are moments in our life when we feel inclined to press to our bosom every flower, and every distant star, every worm, and every darkly imaged loftier spirit—an embracing of all nature like our beloved.—[Ibid.]

In his gods man paints himself.—[Ibid.]

Without humility, man is a perpetual lie.—[Gellert.]

Folly is the queen of the world; we all more or less wear her livery, her orders, her crosses, and her bells.—[Zimmerman.]

Intellectual and moral excellence are the two poles of the axis around which the globe of humanity revolves.—[Herder.]

Virtue is a flower which blooms in all climates.—[Œhlenschloger.]

Poetry is a butterfly on the flower of the world.—[Menzel.]

Envy and cavilling are powerless against true merit. A rushlight may be blown out, but not a sun.—[Weisser.]

[*From the Farmer's Journal.*]

BREED OF CATTLE.—The only reason that can be assigned why the farmer does not find the raising of cattle the most lucrative branch of his calling, is that he does not pay proper attention to the *breeds* of those he keeps. No point is so much neglected—while it is at the same time generally acknowledged that none could be more profitably attended to. If the farmer would sit down and make a careful estimate of the difference in the profit upon a good and a poor animal, he would readily see the importance of this subject. The writer of this recently sold two cows of the same age—the one a good, and the other a poor cow. Both came in at three years old, and both have had a calf every spring since. Both were sold without the calf—the best for $30, and the poorest for $17. Since the sale I have, as is my custom, proceeded to "count the cost," or to estimate the *loss* and *gain* in the case. The following is the result—estimating that $25 is the amount in butter, cheese, &c. obtained yearly from the best cow; that the other gave only half as much milk, and had poorer calves; and that the expense of keeping was the same for both:

BEST COW.

Amount in four years in butter, cheese, &c. - - -	$100	
Am't of 4 calves, sold for $4 each,	16	
" for which cow sold, - -	30	
		146
Keeping four winters on hay, &c.	40	
" " summers to grass,	16	
		56
Nett profit from cow,		90

POOR COW.

Amount in four years, in butter, cheese, &c. - - - -	$50	
Amount of 4 calves sold for $3 each,	12	
" for which cow sold, -	17	
		79
Keeping four winters on hay, &c.	40	
" " summers to grass,	16	
		56
Nett profit from cow,		23

Now suppose that instead of raising these cows, I had bought them at the same for which the best cow sold—for at 4 years old both cows had cost me the same in raising—I then have a nett profit on the best cow of 60 dollars, while on the poorer I sustained *an actual loss of* $7. In my estimate I may not have calculated precisely the cost of keeping, &c.; but this does not affect the *difference* between the good and the poor cow, estimated from its ultimate bearing upon my purse. I only ask my brother farmers to look at this calculation, and see how much they loose by keeping poor cows. On other stock the same difference exists between the good and the poor; and if those who see this fact as I do, will still persist in their neglect of their breeds, it can only be through that *almost* infatuation which sometimes dictates their agricultural *principles*.

In my next, Mr. Editor, I will briefly give my views on the best breeds, manner of improving, &c. A DAIRYMAN.

FATTENING HOGS.—Boil potatoes and sweet apples, mixed with a little rye or oatmeal. For this purpose every farmer ought to have a kettle set in an arch, into which pumpkins, squashes, sweet apples, peas, corn in the ear, and other vegetables, may be thrown to be boiled with meal. It is a fact well ascertained, that a bushel of corn or other grain, ground, will fatten a hog nearly or quite as much as two bushels given to him hard, in the ear or kernel. In the latter case it is imperfectly masticated, and of course not well digested. Boiling the meal makes it still better, and affords the advantage of adding other things to the mess, which improve its flavor, and add to the amount of nutrition. It is to the economy of the hog-pen, what soups are in the kitchen.—[Kennebec Journal.]

EXTRAORDINARY BULL.—The man who raised best stock of cattle, heretofore, or any extraordinary animal, has received not only honor, but a premium. Mr. H. Wheeler, of Nelson, has beat them all. He killed a bull only 14 months old on the 5th inst. which, on being dressed, was found to the surprise of the beholders, to have hoarded up the *substantials* which made him the most valuable animal of his size ever raised in America! Bank bills, in good order, and well conditioned—not a counterfeit among them—were taken from the animal, to the amount of $61. The owner challenges competition.

A Solution of the Above.—One day last week, Mr. Samuel Derby, of Nelson, in the act of taking off a string from his pocket to measure a pair of cattle he was about to purchase, pulled out his pocket-book unconsciously, containing $61 in bank bills. The pocket-book was soon afterwards seized by a yearling bull, and before it could be extricated was pretty well masticated and swallowed. The bull was immediately killed, and *all* the money taken from the stomach of the animal uninjured!—[N. H. Sentinel.]

Leaves for Manure. BY A LABORING FARMER.
[From the New-England Farmer.]

MR. EDITOR,—Sir: I agree with your correspondent, L. L., that leaves are very valuable in a dungheap; but believe me, sir, and I speak from full experience of their effects, if the cattle were littered with them as profusely as he speaks of—if "twenty substantial loads were used for the daily and thorough littering of eight or ten cattle, from the time they were housed in the fall until they were pastured in the spring,"—I should value the manure so mixed at less than half that of a heap in which the leaves were used in proportion to other litter, say straw and refuse hay, as one to four. Indeed, I think such a manure would be good for nothing. Used sparingly, leaves are one of the best ingredients in a dungheap; used in profusion, they are one of the worst. My barn-yard is so situated that I command any quantity I please. Wood-land commences within four rods of one corner of the barn, and extends in two directions, eight and ten miles, yet the quantity of leaves I use does not exceed three or four loads annually. When I tell you that I make as many as eight loads apiece to all my neat cattle, and more than ten to my hogs; that I cart eelgrass a distance varying from one to two miles, to litter them with occasionally, and mix with the dung; that I shall be able, the present year, to dress eight acres, at the rate of twenty loads per acre; that I have the very place he recommends to receive the "washings of the sink"—you will not impute to indolence or apathy, that I use leaves so sparingly in my dungheaps.

CORDIALS, CIDER, AND WINE.—One gallon of Raspberries or Strawberries, when properly mashed, squeezed, and the juice mixed with the requisite quantity of water, sugar, and brandy, will make one and a half gallons of rich, beautiful cordial, having all the good qualities of Madeira wine. There is no loss in adding sugar to the fresh juice, as the quantity increased thereby is of more value than the sweetening. Two years since, last July, I made a barrel of permanent cordial, like cider, without brandy. I took the pure juice of the ripest apples, sweetening it at the rate of half a pound of muscovado sugar to the gallon, I took then an empty cask, and after fumigating it well with the smoke of brimstone, I poured into it through a strainer about three gallons of the juice, then fumigated it again with the brimstone smoke, what the cask could contain, closed the bung, rolled the barrel backwards and forwards for the purpose of impregnating the inclosed liquid with sulphurious fume; repeated the process of pouring in, fuming, and rolling, till the cask was filled, then bunged it up tight, placing it where it would be kept steady and free from perturbation, not meddling with it till Christmas, when I broached it, and better cider I never tasted. I never tried the experiment with any liquid but the juice of the apple: I expect the same process would succeed similarly with the juice of the grape, or that of any other kind of fruit.—[Southern Agriculturist.]

CIDER AND WINE PREVENTIVES OF SICKNESS.—If fruit, cider, and wine, are so estimable in a pecuniary point of view, they are more so as promoters of health, strength, and cheerfulness, as remedies for sickness, and a preventive for many disorders. In the sickly districts of France and Germany, as I am credibly informed, the fever disappears at the approach of the vintage, although it is naturally the sickliest season of the year, and the failure of fruit there is considered as a two-fold public calamity: for besides the loss of the staple commodity, sickness, if not pestilence, is pretty sure to follow. But why cross the Atlantic for instances when there is a sufficiency at home! The cider districts of the maritime parts of New-Jersey, Delaware, Maryland, and Virginia, are naturally, perhaps, as sickly as any part of South Carolina; but fevers there abate at the approach of the cider season, and diminish in proportion as it advances, until they entirely disappear. Many of the farmers in those states dread a failure of fruit as they would the failure of harvest.—[Southern Agriculturist.]

REMARKS.—Will some of our correspondents give us a statement of some facts relative to the above opinion, that cider is a preventive of fevers.—[ED. N. Y. FARMER.]

THE ACACIA.—*Emblem of Domestic Beauty.*—Tints of the white, the golden, and the red rose, are beautifully intermingled with the rich blossom of the Acacia. It is found in the most retired places, and it blooms the fairest in the closeness of its own folinge. It loves the mossy rock and solitary grove, and pines away in the gay garden and crowned parterre. Nourmahal sings,

> 'Our rocks are rough, but smiling there
> The *Acacia* waves her yellow hair,
> Lonely and sweet, nor loved the less
> For flowering in a wilderness—
> Then come, thy Arab maid will be
> The loved and lone *Acacia* tree."

There could be no fitter emblem of a beautiful woman, flourishing in the retirement of her home, secluded from the vanities of "crowded life," and adorning with her bloom the abode of domestic affection.

THE MANDRAKE.—*Emblem of a Guilty Conscience.*—This plant is dark and gloomy; it seeks the shade, and is noxious to the earth where it grows. If its leaves are plucked, after the night dew has descended, they utter a sound like a human cry. So guilt flies to the shade, and empoisons every thing around it; and so when innocence sleeps calmy in its midnight pillow, guilt shrieks under the infliction of merciless conscience.

> "The phantom forms—oh! touch not them,
> That appal the murderer's sight;
> Lurk in the fleshly *Mandrake's* stem,
> That shrieks when torn at night."

THE DAISY—BY JOHN MASON GOOD, M. D.

Not worlds on worlds, in phalanx deep,
Need we to prove a God is here:
The daisy, fresh from winter's sleep,
Tells of his hand in lines as clear.

For who but He that arched the skies,
And pours the day-spring's living flood,
Wondrous alike in all He tries,
Could rear the daisy's purple bud?

Mould its green cup, its wiry stem—
Its fringed border nicely spin;
And cut the gold embossed gem,
That, set in silver, gleams within?

And fling it, unrestrain'd and free,
O'er hill, and dale, and desert sod,
That man, where'er he walks, may see,
In every step the stamp of God?